UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF TEXAS

DALLAS DIVISION

PEDRO RAMIREZ, JR., Individually and on Behalf of All Others Similarly Situated, Plaintiff, vs. EXXON MOBIL CORPORATION, REX W. TILLERSON, ANDREW P. SWIGER, JEFFREY J. WOODBURY and DAVID S. ROSENTHAL, Defendants.	§ § § § § § § § § § § § § §	Civil Action No. 3:16-cv-03111-K CLASS ACTION DEMAND FOR JURY TRIAL

CONSOLIDATED COMPLAINT FOR VIOLATIONS OF THE FEDERAL SECURITIES LAWS

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Lead Plaintiff Greater Pennsylvania Carpenters Pension Fund ("Pennsylvania Carpenters" or "Lead Plaintiff"), by and through its counsel, alleges the following upon information and belief, except as to those allegations concerning Lead Plaintiff, which are alleged upon personal knowledge. Lead Plaintiff's information and belief is based upon, *inter alia*, the independent investigation of its undersigned counsel. This investigation included, but was not limited to, review and analysis of: (i) public filings with the United States Securities and Exchange Commission ("SEC") made by Defendant Exxon Mobil Corporation ("Exxon" or the "Company"), certain of its subsidiary companies and other companies in the oil and gas industry; (ii) research reports by securities and financial analysts; (iii) transcripts of Exxon's earnings conference calls and industry conferences; (iv) publicly available presentations by Exxon and certain of its subsidiary companies; (v) Exxon's press releases and media reports, as well as those pertaining to certain of Exxon's subsidiary companies; (vi) Exxon's securities pricing data; (vii) consultations with relevant experts and consultants; (viii) documents and information from the public records in other civil litigation, including civil litigation related to ongoing investigations by state attorneys general; (ix) the sworn declaration of an oil and gas accounting expert; and (x) other publicly available material and data identified herein. Counsel's investigation into the factual allegations contained herein is ongoing, and many of the relevant facts are known only by the Defendants[1] or are exclusively within Defendants' custody or control. Lead Plaintiff believes that substantial additional evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for further investigation and/or discovery.

[1] "Defendants" refers collectively to Exxon, Rex W. Tillerson ("Tillerson"), Andrew P. Swiger ("Swiger"), Jeffrey J. Woodbury ("Woodbury") and David S. Rosenthal ("Rosenthal"). Defendants Tillerson, Swiger, Woodbury and Rosenthal are collectively referred to herein as the "Individual Defendants."

I. INTRODUCTION

1. This is a federal securities class action brought on behalf of all persons who purchased or otherwise acquired Exxon's publicly traded common stock between March 31, 2014 and January 30, 2017, inclusive (the "Class Period"), and were damaged thereby (the "Class"). The claims asserted herein are alleged against Exxon, its former Chairman of the Board and Chief Executive Officer ("CEO"), Tillerson, its Senior Vice President and Principal Financial Officer ("PFO"), Swiger, its Vice President of Investor Relations and Secretary, Woodbury, and its Vice President, Controller and Principal Accounting Officer, Rosenthal. The claims in this action arise under §§10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act") and SEC Rule 10b-5 promulgated thereunder.

2. Exxon is a company with its corporate worth – and stock price – inextricably tied to the amount and value of its oil and gas reserves. These assets consist primarily of extremely expensive long-term hydrocarbon exploration and extraction projects. As further detailed herein, Exxon is also a company with a well-documented history of intentionally misleading the general and investing public with regard to the science concerning global climate change and its connection to fossil fuel usage, as well as the impact the changing climate is likely to have on Exxon's reserve values and long-term business prospects. *See* §VI.F., *infra*.

3. The Class Period begins on March 31, 2014. On that day, Exxon released a report entitled "Energy and Carbon – Managing the Risks" (the "MTR Report").[2] The MTR Report was not willingly offered by Exxon; rather, it was published as part of a negotiation between Exxon and several of its shareholders in exchange for the withdrawal of a proposed shareholder resolution that

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[2] A true and correct copy of the MTR Report is attached as Exhibit 1 to the Affirmation of John Oleske in Opposition to Exxon's Motion to Quash and in Support of the Office of the Attorney General's Cross-Motion to Compel (N.Y. Sup. Ct., N.Y. Cty. June 2, 2017) ("Oleske Affirmation"), which is attached as Ex. A to this complaint.

sought to impose upon the Company increased disclosure obligations concerning the potential risks posed to Exxon's reserves and long-term business prospects by global climate change.

4. According to the second sentence of the MTR Report, the purpose of the report was to "address important questions raised recently by several stakeholder organizations on the topics of global energy demand and supply, climate change policy, and carbon asset risk." Among other things, the MTR Report stated that "[Exxon] makes long-term investment decisions based in part on our rigorous, comprehensive annual analysis of the global outlook for energy [the 'Outlook']." The MTR Report also assured investors that, "[b]ased on this analysis, we are confident that none of our hydrocarbon reserves are now or will become 'stranded.'"

5. The MTR Report also made numerous representations regarding Exxon's purported use of a "***proxy cost of carbon***." Specifically, the MTR Report stated, among other things, that Exxon "address[es] the ***potential for future climate-related controls***, including the potential for restriction on emissions, through the use of a ***proxy cost of carbon***." The MTR Report further stated that "[t]he proxy cost seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels." In addition, the MTR Report described the proxy cost of carbon as being "***embedded***" in the Company's Outlook – which, as described above, served as the ***primary basis*** for Exxon's assurance to investors that ***none*** of the Company's hydrocarbon reserves were or would become "'stranded.'"

6. On the same day, March 31, 2014, Exxon also released a report entitled "Energy and Climate" (the "E&C Report"). In the E&C Report, Exxon stated, among other things, that "in the OECD nations [which include Canada and the United States], ***we apply a proxy cost that is about $80***

per ton in 2040." In addition, Exxon also stated in the E&C Report: "This GHG proxy cost is ***integral*** to ExxonMobil's planning."[3]

7. Unfortunately for investors, the MTR Report and the E&C Report – like many of Exxon's public representations throughout the Class Period – contained material misrepresentations concerning the Company's purported use of a carbon "proxy cost." As detailed herein, according to internal Exxon documents produced to the New York Office of the Attorney General ("NYOAG") and a sworn affirmation provided by the NYOAG under penalty of perjury, Exxon's actual investment and asset valuation processes did not comport with the Company's public representations concerning its supposed use of a carbon "proxy cost." *See* §IV.E., *infra*.

8. Specifically, contrary to Exxon's public statements: (i) the Company's internal policies actually prescribed the use of ***a separate, undisclosed*** set of proxy costs that were ***significantly lower*** than those described in the MTR Report, the E&C Report and Exxon's other public statements concerning its investment and asset valuation processes; (ii) Exxon used ***no carbon "proxy costs" at all*** in connection with its investment and asset valuation processes for certain projects – including its bitumen heavy crude operations in Alberta, Canada (the "Canadian Bitumen Operations") – which was contrary both to Exxon's internal policies and its representations to investors; and (iii) until at least 2016, Exxon used ***no carbon "proxy costs" at all*** in connection with the Company's asset impairment determinations for its reserve assets. *See id*.

9. As a result, Exxon's statements throughout the Class Period were materially misleading to investors. *See* §V.A, *infra*. Moreover, as detailed in the Declaration of Charlotte J. Wright, Ph.D., CPA, an accomplished oil and gas accounting expert with 35 years of experience in the areas of oil and gas accounting and economic analysis, Exxon's failure to employ carbon proxy

[3] All references herein to "GHG" refer to "greenhouse gas." With regard to Exxon's purported use of proxy costs, the terms "carbon" and "GHG" are used interchangeably throughout this complaint.

cost policies that actually corresponded to the Company's public representations gave rise to violations of Generally Accepted Accounting Principles ("GAAP"), SEC accounting and disclosure requirements, and established accounting practices and guidance, as further detailed herein.[4] *See* §V.B., *infra*.

10. In mid-2014, shortly after Exxon issued the MTR Report and E&C Report, oil and gas prices around the world embarked on a precipitous and prolonged decline. The reported causes for the dramatic price decline included, among other things, a shift in the global economy to become "less fuel intensive," as a result of the information technology revolution and "[c]oncerns over climate change."[5]

11. The sustained decline in oil and gas prices caused Exxon's peers to write off or abandon ***more than $200 billion*** worth of oil and gas reserves, acknowledging that such assets were no longer viable investments capable of generating a profit. Exxon, however, remained uniquely steadfast, repeatedly assuring investors that the Company's superior investment processes and project management distinguished Exxon from its competitors – and effectively allowed the Company to avoid the consequences befalling oil and gas companies around the world. In 2015, Defendant Tillerson typified the Company's brazen attitude by flatly declaring: "***We don't do write-downs***."

12. But Exxon was ***not*** immune to the challenges raised by the historic oil and gas price declines, despite the Company's efforts to falsely portray itself as such. To the contrary, by the end of 2015, Exxon had become a company with declining profits, rapidly rising levels of debt, and an increasingly unsustainable commitment to shareholder payouts. As a result, the Company was

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[4] A copy of the Declaration of Charlotte J. Wright, Ph.D., CPA ("Wright Declaration" or "Wright Decl."), which includes a copy of Dr. Wright's curriculum vitae, is attached as Ex. B to this complaint.

[5] International Energy Agency, *2015 Medium-Term Oil Report*, Feb. 11, 2015.

teetering on the brink of losing its treasured AAA credit rating – a distinction Exxon had held, and boasted about, for 67 years.

13. Around the same time, developments began to partially reveal some of the truth behind Defendants' misrepresentations concerning Exxon's purported efforts to account for the potential business risks posed by climate change concerns. Specifically, on November 9, 2015, *The Guardian* reported that the NYOAG was "investigating whether [Exxon] misled the public and investors about the dangers and potential business risks of climate change." Among other things, the report cited sources confirming that the NYOAG's investigation was focused on "inconsistencies" in Exxon's "filings to the Securities Exchange Commission and other government regulatory agencies." Investors reacted strongly to the news, causing Exxon's stock price to ***fall $2.52 per share***, or 2.98%.[6]

14. By year-end 2015, certain of Exxon's key reserves were facing particularly troublesome situations. Specifically, the Company's Canadian Bitumen Operations, which comprise some of the mostly costly and environmentally controversial oil projects in the world, were losing money, and one such project in particular – an open-pit mining operation at Kearl Lake (the "Kearl Operation") – was all but certain to lose its "proved" reserve classification. At the time, the 3.6 billion barrels of purportedly proved reserves at the Kearl Operation represented approximately 14% of Exxon's entire proved reserves portfolio. In addition, a significant portion of the Company's Rocky Mountain dry gas operations no longer justified their applicable "carrying value" on Exxon's financial statements – a fact that should have required Exxon to record a significant asset impairment charge for those operations in its 2015 Form 10-K.[7] *See* §IV.G., *infra*.

[6] As further detailed herein, investors reacted similarly to several other partial disclosures throughout the remainder of the Class Period. *See* §VII, *infra*.

[7] Throughout this complaint, the terms "Form 10-K" and "Form 10-Q" are used to refer, respectively, to year-end Form 10-K reports and quarterly Form 10-Q reports filed with SEC.

15. Exxon, however, knew that it could not publicly disclose these facts. Doing so would not only cause the Company's stock price to suffer a material drop, it would also contradict Exxon's repeated assertions that it was unaffected by the problems plaguing its competitors, and more importantly, put the Company's prized AAA credit rating in significant jeopardy. Moreover, the AAA credit rating was of particular importance to Exxon at that time, given the Company's upcoming $12 billion public debt offering scheduled for March 2016, which the Company desperately needed in order to support its operations and continue to pay Exxon's shareholder dividend, a key component of the Company's reputation and stock price. Any decline in Exxon's credit rating would have had significant, negative implications for the Company's upcoming debt offering – and Exxon's ability to maintain its dividend at current levels – which meant that Exxon could not risk disclosing any more unfavorable news in early 2016. *See* §IV.M., *infra*.

16. Accordingly, instead of disclosing that the Canadian Bitumen Operations had been losing money for several months in the Company's 2015 Form 10-K – which was filed on February 24, 2016 – Exxon reported that all was well with those operations, detailing an average profit of $5/barrel[8] over the course of 2015, while ***making no mention*** of the change in trend that had occurred due to the fact that the Canadian Bitumen Operations were actually losing money at the time. The 2015 Form 10-K also concealed and omitted the Company's significant asset impairments concerning its Rocky Mountain dry gas operations.

17. As a result, Exxon's 2015 Form 10-K was materially misleading to investors. *See* §V.A., *infra*. Moreover, as detailed in the Wright Declaration, Defendants' failure to disclose the above problems concerning the Canadian Bitumen Operations and Exxon's Rocky Mountain dry gas operations violated GAAP, SEC accounting and disclosure requirements, and established accounting practices and guidance. *See* §V.B., *infra*.

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[8] Unless otherwise noted, all prices set forth herein are provided in units of U.S. Dollars ("USD").

18. Just a month after Exxon issued its false and misleading 2015 Form 10-K, the Company successfully completed its $12 billion debt offering. And just over a month after that, Standard & Poor's ("S&P") did in fact strip Exxon of its prized AAA rating, downgrading the Company to AA+ on April 26, 2016.

19. Later in the year, it was reported that the SEC was investigating Exxon in connection with the Company's ability to avoid the significant asset impairments while write-downs that had plagued the rest of the oil and gas industry over the past two years, while Exxon continued to face ongoing investigations from several state Attorneys General concerning the same issue. Exxon was also encountering increased pressure from investors and market analysts, like Paul Sankey from Wolfe Research, who noted in August 2016 that Exxon's failure to write down any of its reserve assets "raises serious questions of financial stewardship," and further stated at that time that "[i]t is ***impossible to believe that no assets have been impaired***."

20. Finally, in October 2016, unable to fend off the pressure any longer, and despite the fact that oil prices had risen significantly in the second half of 2016, Defendants belatedly admitted that Exxon was not, in fact, immune to the impacts of the oil and gas price declines that began in 2014. Specifically, on October 28, 2016, the Company issued a news release announcing its financial results for the third quarter ended September 30, 2016. In the release, Exxon disclosed that ***nearly 20%*** of the Company's proved oil and gas reserves might no longer satisfy the SEC's "proved reserves" definition at year-end, which would require such assets to be "de-booked" as proved reserves. Specifically, Exxon stated that "[i]f the average prices seen during the first nine months of 2016 persist for the remainder of the year, under the SEC definition of proved reserves, certain quantities of oil, such as those associated with the Kearl oil sands operations in Canada, will not qualify as proved reserves at year-end 2016."

21. Given that the price of oil had rebounded significantly in the second half of 2016, the market was shocked by Exxon's October 28, 2016 disclosure, and reacted strongly. Over the following two trading days, as investors digested the news, ***Exxon's stock price fell $3.60 per share***, or 4.14%.

22. Unfortunately for investors, however, Exxon's October 28, 2016 disclosure only partially disclosed of the truth regarding Defendants' fraud. Contrary to Exxon's warning that de-booking would be required "[i]f the average prices seen during the first nine months of 2016 ***persist*** for the remainder of the year," the truth was that de-booking was all but certain, ***even if prices increased significantly***. Indeed, at the time Exxon issued its October 28, 2016 news release, the Company knew that the only way it could avoid de-booking the Kearl Operation reserves at year-end was if the average price of oil over the last two months of the year was approximately ***three times*** what it had been over the first ten months of the year – a practical impossibility, by any reasonable measure. In addition, the October 28, 2016 news release again concealed that Exxon's Rocky Mountain dry gas operations were, ***at that time***, already subject to significant asset impairment charges. *See* §IV.G., *infra*; Wright Decl., ¶¶71, 104.

23. On January 31, 2017, before the open of trading, Exxon issued a news release announcing the Company's fourth quarter and full-year financial results for 2016. In the release, Exxon disclosed, for the first time, that it would be recording "an impairment charge of $2 billion largely related to dry gas operations in the Rocky Mountain region." In a conference call later that day, Defendants also signaled to investors that the Kearl Operation's proved reserves would, in fact, be de-booked when Exxon announced its "final year-end reserves . . . in the next couple of weeks."

24. The January 31, 2017 disclosures again drew a strong reaction from investors. Specifically, over the following two trading days, Exxon's stock price fell ***nearly $2 per share***, or 2.26%, while the rest of the market actually ***increased***.

25. Through the course of litigation concerning the NYOAG's ongoing investigation of Exxon, additional information has since been made public, confirming the nature and extent of Exxon's deceptive conduct – including, the Company's troubling efforts to conceal critical information concerning its fraud.

26. On March 13, 2017, for example, the NYOAG disclosed in a letter filed with the Supreme Court for New York County that "from at least 2008 through 2015," Defendant Tillerson used an "***alias email address*** . . . to send and receive materials regarding important matters, including those concerning . . . risk-management issues related to climate change." Yet, as detailed in subsequent filings by both Exxon and the NYOAG, Exxon failed to disclose the existence of Defendant Tillerson's alias email address during the initial stages of the NYOAG's investigation – and far worse, ***knowingly failed*** to place a preservation hold on Defendant Tillerson's alias email account, which consequently led to the ***automatic destruction*** of "at least a full year's worth of emails" from Defendant Tillerson's alias email account.

27. On June 2, 2017, the NYOAG revealed in a filing with the Supreme Court for New York County that Exxon's ***knowing failure*** to preserve relevant information and communications regarding the Company's reserve asset valuation processes – and the subsequent ***destruction*** of such evidence – was not limited to Defendant Tillerson's alias email account, but in fact, extended to "***untold numbers of documents from over a dozen key custodians***." Such conduct provides strong additional evidence of Defendants' culpability and state of mind concerning the conduct alleged herein.

II. JURISDICTION AND VENUE

28. The claims asserted herein arise under and pursuant to §§10(b) and 20(a) of the Exchange Act, 15 U.S.C. §§78j(b) and 78t(a), and Rule 10b-5 promulgated thereunder by the SEC, 17 C.F.R. §240.10b-5.

29. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §1331 and §27 of the Exchange Act.

30. Venue is proper in this District pursuant to §27 of the Exchange Act and 28 U.S.C. §1391(b). Exxon has its headquarters in this District and many of the acts charged herein, including the preparation and dissemination of materially false and misleading information, occurred in substantial part in this District.

31. In connection with the acts alleged in this complaint, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the United States mails, interstate telephone communications and the facilities of the national securities exchanges.

32. All Defendants are subject to personal jurisdiction in the State of Texas, as they reside in Texas, committed the acts complained of herein in Texas, or are otherwise subject to the Texas Long-Arm Statute.

III. THE PARTIES

A. Lead Plaintiff

33. Lead Plaintiff Pennsylvania Carpenters is a retirement fund based in Pittsburgh, Pennsylvania, that is designed to provide retirement income for its participants and their families. Pennsylvania Carpenters purchased Exxon common stock during the Class Period and was damaged thereby, as set forth in the Certification filed by Pennsylvania Carpenters in connection with its motion requesting appointment as Lead Plaintiff in this matter.

B. Defendants

34. Defendant Exxon is the largest direct successor of John D. Rockefeller's Standard Oil Trust. Exxon was formed on November 30, 1999, by the merger of Exxon (formerly Standard Oil Company of New Jersey) and Mobil (formerly the Standard Oil Company of New York). The

Company has been headquartered in Irving, Texas since 1989. As of June 30, 2016, Exxon had more than four billion shares of common stock issued and outstanding. The stock trades on the New York Stock Exchange ("NYSE") under the ticker symbol "XOM."

35. Defendant Tillerson was Exxon's Chairman of the Board, CEO and a member of the Management Committee during the Class Period, until his retirement on December 31, 2016. Previously, Tillerson served as President of Exxon from March 1, 2004 through December 31, 2015. On January 1, 2006, Tillerson was elected as Chairman of the Board and CEO. In addition, Tillerson served on Exxon's Board of Directors from March 1, 2004 until his retirement.

36. Defendant Swiger is, and was at all relevant times, Senior Vice President and PFO of Exxon. In addition, Swiger is, and was at all relevant times, a member of Exxon's Management Committee.

37. Defendant Woodbury is Vice President of Investor Relations and Secretary of Exxon and has held that position since September 1, 2014. Previously, Woodbury was the Vice President of Safety, Security, Health and Environment at Exxon from July 1, 2011 through August 31, 2014.

38. Defendant Rosenthal is Vice President, Controller and Principal Accounting Officer of Exxon, and has held that position since September 1, 2014. Previously, Defendant Rosenthal held the position of Vice President of Investor Relations and Secretary of Exxon from October 1, 2008 through August 31, 2014. Prior to that, Defendant Rosenthal held various financial and accounting positions at Exxon, beginning in 1979, including Financial Reporting Manager in 1997. Defendant Rosenthal may be served at 1800 Point De Vue Drive, Flower Mound, Texas 75022, or wherever he may be found.

39. Defendants Tillerson, Swiger, Woodbury and Rosenthal are referred to herein as the "Individual Defendants." Exxon and the Individual Defendants are referred to herein, collectively, as "Defendants." The Individual Defendants participated in a variety of earnings calls, analyst meetings

and shareholder meetings during the Class Period and spoke on issues relevant to this litigation, as further detailed herein.

IV. FACTUAL BACKGROUND

A. A General Overview of the Oil and Gas Industry

40. The oil and gas industry is divided into three distinct but connected industry segments referred to as "upstream," "midstream" and "downstream" operations. Upstream operations encompass the exploration, acquisition, development and extraction of raw oil and gas commodities. The process of locating and extracting hydrocarbons[9] can be extremely capital intensive, as it frequently involves complex, expensive activities, such as drilling wells and installing the surface and sub-surface equipment needed to extract the oil and/or gas through various technologically advanced collection techniques. Downstream operations include the processing and refining of the raw products extracted by upstream operators, and include oil refineries, petrochemical plants, fuel distributors and retail fuel outlets that provide a myriad of refined petroleum-based products, including gasoline, diesel, aviation fuel, heating oil, natural gas, lubricants, chemicals, plastics and fertilizers. Midstream operators provide the necessary link to gather and transport the raw upstream products from often remote petroleum-producing regions in the world, to the downstream operators, where the products can be refined, marketed and sold to industrial or individual consumers.

41. Companies that operate exclusively in the upstream segment are referred to as "independents" or "E&P" companies, while companies engaged in both upstream and downstream activities are considered "integrated" oil and gas companies. The largest integrated oil and gas companies are known as "majors." The largest handful of such "majors" – including Exxon – are often referred to as "supermajors."

[9] Unless otherwise noted, all references herein to "hydrocarbons" or "petroleum products" refer collectively and interchangeably to all oil and gas commodities.

42. In order to comprehend the nature and extent of Exxon's fraudulent conduct in this case, it is necessary to understand three specific concepts related to the operations and financial reporting of an oil and gas supermajor, like Exxon – namely: (i) the size and nature of the capital investments and various costs associated with an upstream oil and gas operation; (ii) the definition and significance of "proved reserves"; and (iii) the recognition of asset impairment charges in connection with capitalized oil and gas reserves. Each of these concepts is addressed briefly below. Separately, a description of two pricing concepts specific to the oil and gas industry – benchmark prices and breakeven prices – is also provided below.

1. Upstream Operators – High Capital Investment with High Uncertainty

43. Given the oil and gas industry's commodity-based nature, the financial performance of any company operating within the oil and gas industry is significantly impacted by changes in crude oil and natural gas prices, or by changes in the profit margins of refined petroleum products in the downstream segment. As such, increases in supply or reductions in demand for petroleum based commodities can have material negative impacts on an integrated oil company's earnings.

44. The profitability of upstream petroleum production is also driven in part by economies of scale – and, more specifically, the size of the petroleum deposits in a particular area or reservoir. In order to benefit from such economies of scale, upstream operators are required to invest massive amounts of capital to develop large, technologically complex projects – such as, for example, in the Canadian oil sands, which consist of large unconventional petroleum reserves made up of extremely heavy and viscous bitumen located in remote areas in Alberta, Canada. The specific capital investment and operating costs associated with upstream operators' efforts to find and produce petroleum products ("upstream costs") are classified by four categories that roughly correspond to the order in which the costs are incurred:

1. **Acquisition costs.** Costs incurred in acquiring the rights to explore for, drill and produce oil and natural gas.

2. **Exploration costs**. Costs incurred in exploring a property, often with geophysical techniques, or by drilling test wells.

3. **Development costs.** Costs incurred in preparing proved reserves for production, including costs of development wells, installing facilities for extracting and treating, gathering and storing oil and gas.

4. **Production costs.** Costs to lift the oil and gas to the surface and in gathering, treating and storing the oil or gas. These costs also include the costs to operate and maintain the plant and equipment, as well as royalties, transportation costs, certain taxes, GHG emission-related expenses, and certain administrative costs.

45. Notably, the first three categories of upstream costs – acquisition, exploration and development costs – often account for as much as half of a complex project's total cost and must be incurred upfront, long before a single barrel ("bbl") of petroleum is ever recovered or sold. Companies that use the "full cost" method of accounting capitalize and amortize all of their costs associated with these three categories over the anticipated production life of a given project. Other companies, including Exxon, employ the "successful efforts" method of accounting, which requires them to capitalize and amortize all of their acquisition and development costs, but only a portion of their exploration costs – namely, those exploration costs generally attributable to successful exploration efforts. Regardless of accounting method, all production costs are generally expensed as incurred (*i.e.*, not capitalized).

2. The Critical Importance of Reported "Proved" Oil and Gas Reserves

46. An oil and gas company's most valuable assets are its "reserves," which refer to the amount of hydrocarbons underground that the company owns or has rights to. The total estimated amount of oil or gas in a petroleum reservoir is referred to as the volume of petroleum "in place." However, due to economic considerations, only the fraction of the petroleum in place that is technologically and commercially feasible to recover can be classified as "reserves" under the widely

accepted definitions and classification taxonomy established by a consortium of petroleum industry organizations.[10]

47. "Commercial feasible reserves" – *i.e.*, reserves for which the total estimated revenue generated by the hydrocarbons exceeds the upstream costs plus an acceptable margin or profit – are further classified as either "proved," "probable," or "possible," in order of the likelihood that they will yield an economically profitable recovery. "Proved reserves" – which must satisfy the SEC and FASB "proved reserves" definition, as detailed below at §V.B.1.c., *infra* – represent the amount of hydrocarbons in a particular reservoir with the highest confidence of economically feasible recovery at the commodity's current price at the time, and are the main category of reserves disclosed in oil companies' public financial statements.

48. The successful discovery, development, production and ongoing replacement of such proved oil and gas reserves are all critical factors to the financial survival of an upstream oil and gas company, as proved oil and gas reserves represent the future cash flow of an upstream oil and gas company. Because Wall Street research analysts and investors use reported proved reserve amounts to value upstream companies and make predictions concerning their revenue and earnings, the quantity, type and replacement ratio of proved reserves have a significant effect on an oil and gas company's stock price.

49. Indeed, it is widely accepted that, in valuing an oil and gas company, "[p]roved reserves are expected to be a primary indicator of company value and to be positively correlated with market capitalization. Reserves represent the inventory of the company, and larger reserves are

[10] In March 2007, the Society of Petroleum Engineers, World Petroleum Council, American Association of Petroleum Geologists, and the Society of Petroleum Evaluation Engineers, working together, developed and adopted a reserve definition and classification taxonomy called the Petroleum Resource Management System ("PRMS") that has been widely accepted and employed by the industry and financial community. While the SEC has developed its own set of petroleum industry definitions for use in financial reporting and in other reports by public E&P companies, the SEC reserve definitions are fairly consistent with the PRMS.

expected to be associated with higher valuation and longer production life."[11] Proved reserve replacement is similarly important, as "[t]he reserve-replacement ratio is a key measure for oil producers and the investors and analysts who follow them: it's one indicator of a company's long-term ability to maintain or expand crude and gas output."[12]

50. The SEC has long believed that this focus on the historical costs of finding and developing oil and gas reserves fails to reflect the future economic benefits of producing and selling oil and gas reserves or provide sufficient information critical to investors in estimating an oil and gas company's future cash flows. To remedy this shortcoming, the SEC and FASB require all public companies engaged in significant oil and gas activities to supplement their public financial statements with additional reserve disclosures required by the FASB Financial Accounting Standards Codification Topic 932, *Extractive Activities – Oil and Gas* ("ASC 932"). ASC 932 requires supplemental reporting of information about oil and gas reserves, including the following: (a) proved oil and gas reserve quantities; (b) capitalized costs relating to oil and gas producing activities; (c) costs incurred for property acquisition, exploration and development activities; (d) results of operations for oil and gas producing activities; and (e) a standardized measure of discounted future net cash flows relating to proved oil gas reserve quantities.

51. Most importantly, because proved reserves are a critical measure of the potential future profitability of an upstream oil and gas company or business segment, the SEC's Regulation S-X Rule 4-10 defines the strict criteria under which reserves can be considered "proved," and includes the crucial hurdle that such reserves must be "economically" produced at a profit in the economic

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[11] M. Kaiser & Y. Yu, *Part II: Oil and gas company valuation, reserves, and production*, Oil & Gas Fin. J., Mar. 1, 2012.

[12] J. Carroll, *Exxon Fails to Replace Production for First Time in 22 Years*, Bloomberg, Feb. 19, 2016.

environment existing when the public financial statements are filed, as further detailed herein. *See* §V.B.1.c., *infra*.

52. The determination of whether certain reserves meet the SEC's "economic producibility" under "existing economic conditions" test for proved reserves requires consideration of both historical prices and expected future costs. SEC Rule 4-10(a)(22)(v) has defined the assumed future sales price to be used in the test for every barrel of estimated proved reserve to be the "lookback" arithmetic average price of the first-day-of-the-month prices for the prior 12 months of the reporting period, unless future sales price commitments are defined by contractual arrangements, as further detailed herein. *See* §V.B.1.c., *infra*.

53. The first-day-of-the-month prices must be adjusted to reflect the physical location and quality of the particular proved reserves being estimated. Forecasted petroleum prices, futures prices or inflation are not to be used. The estimated cost of each barrel of reserve to be used in the proved reserve calculation is the period end cost level applied to each year in the future for which there will be production of the proved reserves. While inflation escalations cannot be considered, known cost changes in the future, including tax and royalty changes as well as major maintenance, must be included.

54. To the extent applying these updated calculations results in a determination that previously classified proved reserves are no longer economically producible under the economic conditions existing at the end of the new reporting period, SEC rules requires disclosure of the "revision" of the previously estimated quantity of proved reserves. This revision, often referred to as a "de-booking" of proved reserves, appears as a negative revision to the beginning of the year proved reserves quantities in the supplemental disclosure of proved reserves in the notes to the financial statements.

3. Impairment of Capitalized Oil and Gas Projects

55. As discussed at ¶325, *infra*, oil and gas operators, such as Exxon, are required to capitalize a significant amount of the costs associated with their acquisition, exploration and development of oil and gas producing projects as assets on their corporate balance sheets. Such assets represent resources that are expected to generate future cash flows in excess of the capitalized costs associated with the project. Should a time come, however, when the project's forecasted future net cash flows are no longer expected to exceed the capitalized project costs, the asset is said to be "impaired," and must be written down to its actual fair value through the recording of an impairment charge against the company's earnings. Accordingly, recognition of an impairment charge reduces the amount of profits the company reports to its shareholders and the investing market generally.

56. As detailed at §V.B.1.b., *infra*, financial accounting rules outline broad circumstances in which an oil and gas company's long-lived asset might be impaired and prescribe specific tests to measure projected future cash flows to determine if this is the case. Persistently low oil or gas prices are often the cause of asset impairment charges in the oil and gas industry, as expected future petroleum price levels directly impact future cash flow and profitability and, therefore, whether the huge upfront costs related to the acquisition and development of a project will ultimately be recovered. As detailed at ¶148, *infra*, during the global collapse of oil and gas prices during 2014 and 2015, oil and gas companies worldwide were forced to record hundreds of billions of dollars' worth of asset impairment charges.

4. Oil and Gas Pricing Concepts

a. Benchmark Prices

57. When upstream oil and gas commodities are eventually made available for sale by an upstream operator, like Exxon, the specific product to be sold is typically priced with reference to the "spot price" for a well-accepted – and widely reported – oil or gas "benchmark," which refers to a

specific, established hydrocarbon product with a defined chemical composition that is bought and sold at a specific regional location. The need for such a pricing convention is driven by the reality that there are myriad different types and grades of oil and gas products and the transportation costs associated with getting the products to their desired locations can be significant. Accordingly, each specific commodity is generally priced by referencing the benchmark price for a known composition at a known location and applying a discount, or "differential," that reflects the particular commodity's quality compared to the benchmark and the additional transportation costs associated with the specific location at which the particular commodity is purchased.

58. For example, the price for a barrel of diluted bitumen heavy crude ("dilbit") produced in western Canada is most commonly referenced to the benchmark spot price for "Western Canadian Select" ("WCS"), a heavy (high viscosity), sour (high sulfur) oil comprised mostly of Canadian bitumen, for immediate delivery at the Husky oil terminal at Hardisty, Alberta. The price is then adjusted by applying the appropriate differential needed in order to account for any quality differences between the stream being priced and the published chemical composition of the established WCS benchmark standard, as well as any additional transportation resulting from a point of sale that occurs at anywhere other than Hardisty. In turn, because WCS is itself a heavy, sour crude with a high impurity content, it costs considerably more to refine than the universally recognized West Texas Intermediate ("WTI") benchmark for light, sweet (low sulfur) crude in the United States. Accordingly, WCS will receive a lower price in the market place due to these less valuable characteristics and trades at a substantial daily differential to the superior WTI crude price available for delivery at the Cushing, Oklahoma terminal.

59. Similarly, natural gas produced in the United States is most commonly priced and traded in reference to the "Henry Hub" benchmark spot price, which refers to an established natural gas with a specified chemical composition that is available for immediate delivery "on the spot" at the

Henry Hub natural gas distribution hub in Erath, Louisiana, with applicable quality and transportation differentials applied as described above.

b. Breakeven Prices

60. The "breakeven price" for a particular operation seeks to define the average price an operator needs to sell its product for in order to adequately cover its costs for the operation and turn a profit, or breakeven. As discussed below, breakeven prices can be defined from both a "full cycle costs" perspective and "current cash costs" perspective.

61. The "full cycle costs" for a particular upstream project refer to the full set of upstream costs defined in ¶44, *supra*, projected over the complete life of the project, plus a reasonable return on investment (including a risk premium for investing in the oil business). Accordingly, as used herein, the "full cycle breakeven price" is derived by dividing the total full cycle costs over the life of the project by the estimated total barrels of reserves expected to be available over the life of the project. The resulting figure – the full cycle breakeven price – provides an estimate of the average per barrel sales price needed over the life of the project in order for the operation to recover its full cycle costs and make a profit over the span of the operation's projected life.

62. Alternatively, the term "cash breakeven" price, as used herein, refers to the average per barrel sales price needed by an operator at a given point in time in order to cover the operation's current out-of-pocket expenses during the period in question (*i.e.*, the expenses and costs associated with the actual production and sale of the particular operation's hydrocarbon product).

63. If the prices received for the commodity produced from a particular upstream operation generally stay at or above the full cycle breakeven price, the operator has an incentive to sustain investment and activity in the project. Alternatively, if the prices received fall below the full cycle breakeven price, the operations will not be sustainable over time. In such a scenario, the operator may temporarily be able to keep operations running as long as the prices received for the

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commodity generally stay at or above the cash breakeven price, but such activity generally cannot be sustained over time, given the sizable unamortized acquisition, exploration and development costs already sunk into the project and the need for future capital investment, repair and replacement, let alone a return on investment. If the prices received for the commodity cannot even consistently exceed the cash breakeven price, the operation is generally not viable on either a short-term or long-term basis.

B. A General Overview of Exxon

64. Defendant Exxon is the world's largest oil company and one of the ten largest companies in the world. Exxon is headquartered in Irving, Texas. Its stock trades on the NYSE under the symbol "XOM."

65. Exxon was incorporated in the State of New Jersey in 1882 and has its roots in the Standard Oil Trust. The ExxonMobil conglomerate that exists today resulted from the merger of Exxon (formerly the Standard Oil Company of New Jersey) and Mobil Corporation (formerly the Standard Oil Company of New York) in 1999, a merger of the two largest oil companies in the United States at that time.

66. Exxon has three primary business segments: (1) an upstream segment, which includes its exploration and production operations (commonly referred to as E&P); (2) a downstream segment, which includes its refineries and retail operations; and (3) a chemicals segment, which includes the manufacturing and sale of various petrochemicals.

67. While Exxon has substantial operations in all three of these areas, Exxon is known primarily as a global E&P business. Historically, Exxon's upstream business segment has been responsible for the majority of the Company's profits. For example, in 2014, Exxon's upstream operations generated approximately $27.5 billion of net income – or nearly 85% of the Company's total net income of $32.5 billion. In 2015, Exxon's upstream operations generated approximately

$7.1 billion of net income, which represented only about 40% of Company's total net income of $16.2 billion, but was still the largest percentage contribution among Exxon's three primary business segments. In 2016, however, this trend shifted significantly, with Exxon's upstream operations generating only approximately $196 million of the Company's total net income of $7.8 billion – or approximately 2.5%. Exxon 2016 10-K at 36.

68. Publically, Exxon has frequently touted the strategies for its upstream business segment as being focused on acquiring new hydrocarbon resources, exercising a disciplined approach to investing and cost management, developing and applying high-impact technologies, pursuing productivity and efficiency gains, growing profitable oil and gas production, and capitalizing on growing natural gas and power markets. In addition, Exxon claims that its upstream "strategies are underpinned by a relentless focus on operational excellence." Exxon 2015 10-K at 42.

69. In connection with its upstream business, and given its massive scale, Exxon's business model is dependent upon seeking out large oil and gas fields that require significant investments of capital over many years in order to establish an acceptable rate of return. For the most part, Exxon's upstream growth is through acquisitions, as opposed to organic growth. According to the *Financial Times*, Exxon had targeted growth by acquisition, in contrast to Chevron, which was focused on organic growth. In fact, at the time that Exxon acquired XTO Energy in 2010, that single acquisition accounted for 80% of all of the oil reserves Exxon added that year. S. McNulty, *Exxon Deal Highlights Oil Reserve Issue*, Financial Times, Feb. 15, 2011.

70. It is well established that Exxon's upstream operations are centered around investments in risky, capital-intensive development projects. According to *Inside Climate News*, "[a]mong the international oil and gas giants, Exxon has the highest percentage of its capital expenditures going to high-cost projects, which would be the first to be abandoned if carbon

emissions are tightly controlled." N. Kusnetz, *Ranking Oil Companies by Climate Risk: Exxon is Near the Top*, Inside Climate News, June 20, 2017.

71. Exxon claims it has the "industry leading resource base," which it describes as "a diverse portfolio of exploration and development opportunities, which enables [it] to be selective [and] mitigat[e] . . . risk." Exxon 2016 10-K at 42.

72. As noted in §IV.A.2., *supra*, the primary assets of an E&P company, such as Exxon, are its oil and gas reserves, which represent the amount of identified hydrocarbons underground owned or leased by the company. M. Kaiser & Y. Yu, *Part 1: Oil and gas company valuation, reserves, and production*, Oil & Gas Fin. J., Feb. 1, 2012. As such, the resource base of an E&P company is of particular significance to investors and analysts.

73. Because it is such an important issue to investors, the SEC requires E&P companies to disclose their oil and gas reserves on an annual basis. These reserves reports include all oil and gas reserves, both proven reserves and overall reserves.

74. In connection with its Reserve Report released on February 23, 2015, Exxon reported it held proved reserves of 25.3 billion oil-equivalent barrels at year-end 2014. Exxon also boasted that "[i]t was the 21st consecutive year that ExxonMobil replaced more than 100 percent of its production." Of its reserves, Exxon disclosed that 700 million barrels resulted from "further definition of the Kearl resource."

75. In its Reserve Report released on February 19, 2016, Exxon reported it held proved reserves of 24.8 billion oil-equivalent barrels and an overall resource base of 91 billion oil-equivalent barrels at year-end 2015.

76. On February 22, 2017, Exxon announced its year-end 2016 oil and gas reserves, reporting proved reserves of 20 billion oil-equivalent barrels, writing down the entire 3.5 billion

barrels of bitumen at Kearl in Alberta, Canada. Exxon further reported total reserves of 91 billion oil-equivalent barrels at year end 2016.

77. Exxon's need to aggressively acquire new resources is further reflected in its reporting of its "Reserves Replacement" statistics. The Reserve Replacement Ratio is recognized as a "key measure" for oil producers and investors, as it is "one indicator of a company's long-term ability to maintain or expand crude and gas output." J. Carroll, *Exxon Fails to Replace Production for First Time in 22 Years*, Bloomberg, Feb. 19, 2016.

78. Exxon issued a press release on February 23, 2015, reporting that its 2014 reserves replacement rate was 104% for the 2014 year. Exxon further boasted to the market that its reserve replacement rate exceeded 100% for the 21st consecutive year. However, for the year-end 2015, Exxon reported a proved reserves replacement rate of only 67% and an overall liquids replacement rate of 219%. Exxon claimed a "long reserve life of 16 years," which "lead[s] competition." In reporting these rates, Exxon claimed it used "[r]igorous reserves evaluation process[es]" and maintained "the highest . . . integrity." Transcript of Exxon Mobil Corp. Analyst Meeting, Mar. 2, 2016, at 8.

79. In order to meet its financial goals, Exxon also needs to add production capabilities aggressively every year. Exxon claimed last year that, since 2012, the Company had "started up 22 major Upstream projects, adding more than 940,000 oil-equivalent barrels per day of working interest production capacity." Exxon also stated it was "on track to start up 10 new Upstream projects in 2016 and 2017, adding 450,000 oil-equivalent barrels per day of working-interest production capacity." Press Release, Exxon, *Exxon Mobil Focuses on Business Fundamentals; Paced, Disciplined Investing* (Mar. 2, 2016).

80. Exxon refuses to disclose detailed information about many of its internal metrics and accounting, including but not limited to how it performs reserves analyses, how it performs

impairment analyses, how it values and accounts for various actual and projected carbon costs, including taxes and regulatory issues, and other internal accounting issues.

81. At its Analyst Meeting in New York City on March 2, 2016, Exxon claimed its superior performance over its peers was in part due to its "[s]electively investing in attractive opportunities" and its "[e]ffective project execution [which] provides the lowest installed capital cost."

82. Exxon has repeatedly claimed that its financial performance is the best in its class and that it provides "industry-leading returns." For example, in March 2016, Defendant Tillerson stated:

> Exxon Mobil Corporation . . . is achieving industry-leading financial performance throughout the commodity price cycle by maintaining a focus on the fundamentals, selectively investing in the business and paying a reliable and growing dividend.

83. Exxon has repeatedly claimed to be superior to its competitors in a wide variety of performance metrics, including the following statements:

- "ExxonMobil's return on capital employed continues to outperform our peers. In 2014 ROCE of 16.2% was more than 5 percentage points higher than our nearest competitor. Over the past 5 years, ROCE averaged 21%, again about 5 percentage points higher than the next best competitor." Defendant Tillerson, Transcript of Exxon Mobil Corporation 2015 Analyst Meeting, Mar. 4, 2015, at 8.

- "Our sustained leadership and capital efficiency reflects our proven approach, which combines a disciplined investment approach [and] best-in-class project development capabilities . . . ." *Id.*

- "Exxon Mobil's upstream profitability led the competitor group in 2014 . . . ." *Id.*

- "We're very well positioned to continue the same level of superior performance in the future, and we think that all underpins the strong credit rating that we have." Defendant Woodbury, Transcript of Q4 2015 Exxon Mobil Corp. Earnings Call, Feb. 2, 2016, at 20.

- "The Corporation is uniquely suited to endure these conditions and outperform competition, leaving us best-positioned to capture value in the upturn." Defendant Tillerson, Transcript of Exxon Mobil Corp. Analyst Meeting, Mar. 2, 2016, at 4.

84. Exxon also has a long history of unwavering commitment to issuing shareholder dividends, frequently touting the Company's "reliable and growing dividend" as a significant benefit

to investors. Indeed, on May 28, 2014, Defendant Tillerson articulated the degree of Exxon's unwavering commitment to paying its shareholder dividend by stating: "[W]e have a lot of dollars, and levers and knobs we can turn and push and pull to ensure that we can continue to deliver the kind of dividend performance that you've come to expect of us. We're certainly committed to do that."

85. On March 2, 2016 – the same week as Exxon's $12 billion public debt offering – Defendant Tillerson further confirmed the importance of Exxon's dividend to the Company's reputation and corporate identity in connection with his comments concerning the rationale behind the offering. Specifically, Defendant Tillerson stated, in part, "yes, the dividend is a high priority, because its part of why we are important to long-term shareholders."

86. Exxon has historically increased its dividend for 34 consecutive years, with an annual increase of 10% per year over the past ten years. On average, $0.40 of every dollar generated by Exxon businesses during the last five years has been distributed to shareholders.

87. In addition to its dividend, Exxon has also aggressively repurchased shares of its common stock. Since the Exxon and Mobil merger in 1999, Exxon reports it has reduced the overall outstanding shares of its stock by 40%, buying back about $210 billion of its own stock. In March of 2016, Exxon reported that it had "tapered" this program in 2015, only repurchasing $3 billion of its shares that year and only doing so to offset dilution, effectively discontinuing the Company's previous plan to purchase its own shares for the purpose of reducing the total number of Exxon shares outstanding. *See, e.g.*, D. Gaffen, *Exxon, tops in stock buybacks, now saving its cash*, Reuters, Feb. 2, 2016.

88. As part of its claim to superior performance, Exxon has regularly boasted about its credit rating. At its Analyst Meeting in New York City on March 2, 2016, Exxon cited its Standard & Poor's AAA credit rating to investors, boasting that its AAA rating gave it "[s]ubstantial flexibility to respond to opportunities"; that it was the "[r]esult of prudent financial management"; and that it

provided "[u]nmatched access to capital on the most attractive terms." Further, Exxon pointed out to investors that its AAA credit rating was better than its peers Chevron (AA-), Shell (A+) and BP (A-).

89. S&P had a AAA rating on Exxon's debt for 67 years, dating back to July 5, 1949. As detailed in §IV.H., *infra*, however, that credit rating was recently changed when S&P downgraded Exxon's debit rating on April 26, 2016.

90. Exxon also has a long history of refusing to record write-downs or impairments in connection with its reserve assets. Indeed, in 2015, Defendant Tillerson publicly stated in an interview with *Energy Intelligence* that "***We don't do write-downs***. We are not going to bail you out by writing it down. That is the message to our organization."

C. Exxon's Canadian Bitumen Operations

91. Two of Exxon's key upstream projects consist of diluted bitumen-producing operations in Alberta, Canada – one, the Kearl Operation (or "Kearl"), located in the Kearl Lake area of the Athabasca oil sands region, and the other (the "Cold Lake Operation") located in the Cold Lake oil sands region. Below is a diagram showing the respective geographic locations of the Kearl Operation and the Cold Lake Operation:

92. Bitumen is an unconventional petroleum source. It is an extremely thick, tar-like substance found in naturally occurring loose sand and clay deposits referred to as oil sands, or tar

sands. Bitumen is almost solid at room temperature and too heavy or thick to flow or be pumped without being diluted or heated. As such, bitumen requires significantly more processing than light crude oil before it can be used by refineries to produce usable fuels such as gasoline and diesel, which is one of the reasons bitumen is one of the world's most costly hydrocarbons to produce.[13]

93. The world's largest bitumen reserves are thought to be located in northern Alberta, Canada. Prior to the late-1990s and early-2000s, extracting this resource in large quantities was generally not considered economically feasible. However, rising oil prices in the first 15 years of this century – which climbed to and hovered around an average of $100/barrel between 2007 and mid-2014 – resulted in unprecedented expansion of oil industry development in the Canadian oil sands. As detailed *infra*, however, oil prices have steadily declined since mid-2014, drastically impacting the viability of bitumen operations in the Canadian oil sands.

94. Canada's heavy, bitumen-based crude is not only some of the most expensive oil in the world to produce, it also sells at a very high discount relative to other global crude streams. After processing and cleaning, bitumen must be blended with a light-petroleum based mixing agent called diluent to enable it to flow through a pipeline. For every ten barrels of raw bitumen, about three barrels of diluent are required. This is noteworthy, as diluent is relatively expensive. In January 2016, for example, the market price of bitumen was in danger of falling below the price of diluent. The resulting diluted product is a heavy crude (known as "dilbit"), which itself requires significant further high-technology refining to be useful. Alternatively, processed bitumen can be directly

[13] There are two methods used to extract bitumen from the Canadian oil sands, depending on the depth of the bitumen deposits in question. If the bitumen deposits lie within less than 250 feet of the surface, the oil sands are strip mined from the surface of vast open pits through a costly method referred to as "open-pit mining." Such operations tend to be physically massive undertakings and require huge capital commitments, economies of scale, and extremely long reservoir lives to be profitable. For deposits that are deep below the surface, the bitumen is extracted "in-situ" (or in place), using high-pressure steam injection to melt the heavy tar-like substance so it will temporarily flow and can be pumped to the surface for substantial further processing. In-situ bitumen plants, while still capital intensive, are much smaller undertakings relative to open-pit mining bitumen operations, but the life of the reservoir is considerably shorter.

"upgraded" in the field into a light synthetic crude oil, but the process is expensive, typically requiring billions of dollars to build an "upgrader" at or near the extraction site.

95. Profit margins for bitumen production are limited compared to production and sale of conventional light sweet crude oil from fields such as those located in Saudi Arabia. Unlike light crude oil, which can be pumped directly from the ground and sent to simple refineries, bitumen is subject to the much more capital-intensive production processes described above. Moreover, the resulting dilbit is sold at a substantial discount, primarily due to: (i) the high transportation costs from remote Canada, often by rail car; and (ii) the buyer's higher refining costs to remove the impurities from the heavier crude.

96. As noted above, Exxon controls two separate bitumen operations in Alberta, Canada. The Kearl Operation, an open-pit mining operation, is a joint venture between Exxon's majority-owned and fully-consolidated subsidiary, Imperial Oil limited ("Imperial"),[14] and Exxon's 100% owned subsidiary, ExxonMobil Canada. The Cold Lake Operation is a thermal in-situ bitumen extraction operation that is owned and operated by Imperial.

97. In its 2015 Form 10-K, Exxon reported a total 4.56 billion bbls of proved reserves from the Canadian Bitumen Operations, roughly 75% of which were attributable to Kearl. At that time, the proved reserves from the Canadian Bitumen Operations comprised an enormous portion of Exxon's total worldwide proved reserves, accounting for 31% of Exxon's total liquids proved reserves and 18% of combined liquids and natural gas worldwide proved reserves.

98. The Canadian Bitumen Operations were also important because of the outsized contribution they made to Exxon's important reported reserve replacement ratios. Indeed, in Exxon's 2015 Form 10-K, the Company reported that proved reserve additions from the Canadian Bitumen

[14] Imperial is, itself, a publicly traded company, but its operations are fully consolidated onto Exxon's financial statements, due to the fact that it is 69.9% owned by Exxon. As detailed further in §VI.D., *infra*, Exxon has owned and controlled Imperial for over 115 years.

Operations in 2014 and 2015 were 669 million bbls and 433 million bbls, respectively – by far the largest proved reserve additions of all the Company's geographic segments for 2014, and the second largest for 2015. Without the Canadian Bitumen Operations' outsized proved reserve additions in 2014 and 2015, Exxon's reserve replacement ratios would have been a paltry 59% and 39% for 2014 and 2015, respectively, compared to the 67% and 104% Exxon reported for those years, as discussed at ¶78, *supra*.

99. The lion's share of these bitumen reserve additions in 2014 and 2015 came from the Kearl Operation, as noted by Defendant Tillerson during a March 4, 2015 analyst meeting, and by Defendant Woodbury during Exxon's October 30, 2015 earnings conference call. *See* ¶¶258-268, *infra*.

1. The Kearl Operation

100. The Kearl Operation occupies a seventy-five square mile leased tract of land in a remote forested area fifty miles northeast of Fort McMurray, Alberta, Canada. The Kearl Operation first began production in mid-2013. Imperial holds a 70.96% interest in Kearl, while ExxonMobil Canada holds the other 29.04%. Bitumen from the Kearl Operation is mined, crushed, chemically cleaned, heated and processed on site, then diluted with a blend of petroleum diluent and shipped via pipeline or rail, mostly to refineries owned and operated by Exxon or its subsidiaries in Canada or the United States.

101. By the end of 2015, Exxon's Canadian bitumen reserves comprised an enormous portion of Exxon's total worldwide proved reserves, accounting for 31% of Exxon's total liquids proved reserves and 18% of combined liquids and natural gas worldwide proved reserves. The vast majority, or roughly 75%, of the 4.56 billion bbls of proved Canadian bitumen reserves Exxon reported in its 2015 Form 10-K were located at Kearl, with the remainder at Cold Lake.

102. Exxon has described the Kearl Operation as a state-of-the-art bitumen mining operation. The sheer size and scope of Kearl's mining operations are stunning. To accommodate four vast open-pit mines, a 4.5 mile-long wastewater storage lake, and a massive processing plant, most of the seventy-five square miles of existing forest, topsoil and clay covering the remote property will eventually be stripped away, with the wetlands drained and rivers and streams diverted. To process a daily output of approximately 203,000 bbls at the end of 2015, and the planned 345,000 bbls of heavy crude per day, the Kearl Operation's infrastructure includes more than a dozen two- and three-story tall mining trucks and shovel loaders, multiple processing trains, three 85-megawatt gas turbine electricity/steam cogeneration plants, a froth plant to remove water, clay, silt and asphaltenes from the product, storage tanks and related facilities, a terminal to deliver bitumen to a pipeline system, and power transmission and fresh-water utilities to support the mining and processing. In addition, the development and operation require sizable infrastructure to accommodate a large workforce commuting to a remote winter environment, including local accommodations, roads, sewage treatment, water import and storage, electricity, communications, administrative complex and an airfield for employees and contractors.

103. The size of Exxon's capital expenditure commitment to acquire, explore and develop the Kearl Operation is equally sobering. Development of the Kearl Operation was plagued by considerable cost over-runs from the beginning. The plan was to develop the Kearl Operation's production capacity in four independent phases, increasing production with each phase. The initial phase, originally forecast at $8 billion (CAD), was then revised to $10.9 billion (CAD) after the project commenced. By the time the initial phase was complete and the plant opened in 2013, however, the initial cost had ballooned to $12.9 billion (CAD) – a 62% cost overrun. By the completion of phase 2 in mid-2015, Exxon and Imperial had made a combined capital investment of

at least $21.9 billion (CAD) (approximately $16.9 billion USD)[15] to develop the Kearl Operation, consisting of the initial $12.9 billion (CAD) and an additional $9 billion (CAD) to fund the phase 2 expansion. As discussed *infra*, phases 3 and 4 were never completed, due to the prolonged oil price slump experienced in 2014 and 2015. *See* §IV.F., *infra*.

104. According to *The Wall Street Journal*, "[f]or its Kearl oil sands project in Alberta, Exxon invested more than $20 billion."[16] To put this figure in perspective, in 2015, Exxon's total acquisition, exploration and development costs for all of its projects – worldwide – were $23.4 billion.

105. Notably, the costs described above in ¶104 are only the capital expenditures to explore and build the Kearl Operation's infrastructure and do not include the annual recurring production costs needed to actually operate the mine – which, in 2015, totaled approximately $1.4 billion.

106. In addition to the recurring operating costs to run the Kearl Operation, Exxon's consolidated Canadian subsidiaries are burdened by a variety of current and future taxes, royalties and GHG emission taxes related to the Kearl Operation's production. For example, Exxon and its subsidiaries pay royalties to the Alberta provincial government on production, based upon a sliding scale determined largely by the price of oil. In 2005, Imperial estimated these royalty and federal and provincial tax payments to be $24 billion (in 2005 CAD) over the 40+ year expected life of the Kearl Operation.

107. The economic viability of the Kearl Operation quickly evaporated with the collapse of oil prices by 2015. In 2008, the year Exxon announced the completion of the Kearl Operation engineering and design work, the WCS crude benchmark price climbed as high as $129/bbl. By the

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[15] Imperial's disclosed average exchange rate for 2015 was 0.7748 CAD/USD.

[16] S. Kent, B. Olsen & G. Kantchev, *Energy Companies Face Crude Reality: Better to Leave It in the Ground*, Wall St. J., Feb. 17, 2017.

time Exxon had completed construction, commenced production, and began the phase 2 mine expansion at Kearl in 2013, oil prices had averaged roughly $72/bbl for three straight years. By the time Exxon filed its 2015 public financial statements on February 24, 2016, the WCS benchmark price of heavy Canadian crude had experienced a steady 20-month collapse from a high of $87.23/bbl on June 12, 2014 to $14.50/bbl on January 20, 2016.

2. The Cold Lake Operation

108. Imperial's 100% owned Cold Lake Operation is one of the largest, longest-running in-situ bitumen operations in Alberta, with leases covering about 300 square miles. The operation recovers bitumen deep below the surface by injecting steam into a well, heating up the surrounding bitumen, then pumping the bitumen to the surface. Like the Kearl Operation, the tar-like bitumen product from Cold Lake requires the addition of diluent for transport to refineries via pipeline or railcar. The operation is located approximately 170 miles northeast of the city of Edmonton, and 250 miles south of the Kearl mining facility.

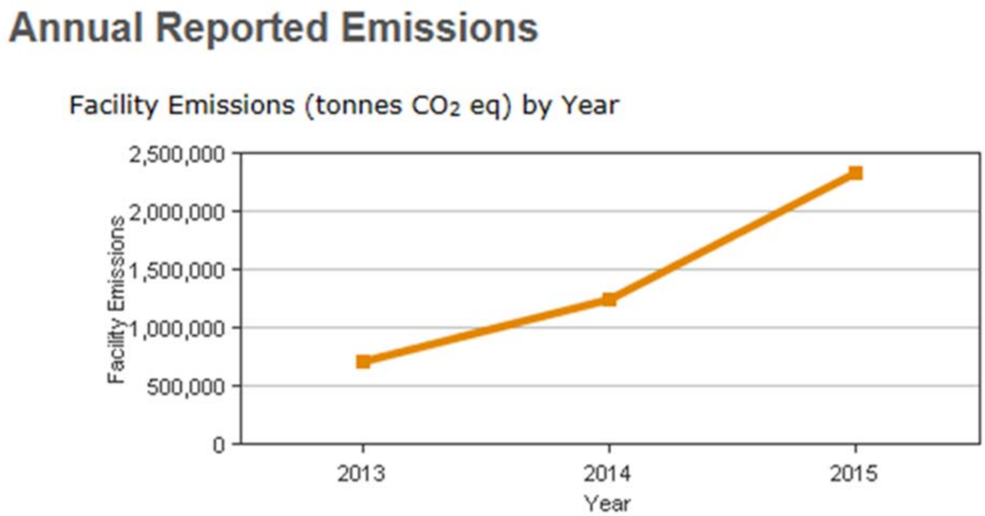
109. Imperial's SEC filings disclose that, to maintain production at Cold Lake, material capital expenditures for additional production wells and associated facilities are required periodically. While additional wells were drilled at Cold Lake in 2015, Imperial ceased drilling new wells by year-end 2015, with no new wells drilled in 2016. While Imperial had planned to significantly expand production capabilities at the Cold Lake Operation and applied for regulatory approval in early 2016 to have that option, Imperial's 2016 10-K discloses that "no final investment decision has been made" for the Cold Lake expansion plan. As part of its massive Canadian Bitumen Operations proved reserves revision at year-end 2016, Exxon disclosed that 200 million bbls of Cold Lake bitumen proved reserves were de-booked.

3. The Alberta Carbon Tax

110. Starting in 2007, the Province of Alberta, Canada began implementing a series of regulations aimed at addressing the amount of carbon dioxide (“CO_2”) being emitted by large companies. Alberta implemented the Specific Gas Emitters Regulation (“SGER”), which established the Climate Change and Emissions Management Fund (“CCEMC” or “Fund”) and gave the Minister of the SGER authority to fund the CCEMC through a carbon pricing initiative, *i.e.*, a carbon tax. Under the SGER, Alberta companies that annually produce more than 100,000 tons of GHG emissions over a baseline are legally required to reduce their GHG intensity by 12%. Companies can meet their reduction target by making a payment directly to the Fund for every ton over the reduction limit or by actually buying a comparable amount of carbon credits in the Alberta-based offset system, or the companies can demonstrate improvements of their operations in a comparable amount. Payments to the Fund from emitters have grown to $578 million (CAD) ($443 million USD) in the 2007 through 2014 compliance periods.

111. The rates of the carbon tax were established to increase over time. The Minister required emitters to contribute to the Fund in 2015 at the rate of $15 (CAD) per ton of carbon dioxide equivalent (“tCO_2e”) or $12 (USD)/$tCO_2e$. In 2016, the rate was increased to $20 (CAD)/$tCO_2e$ or $15 (USD)/t CO_2e. And then in 2017, the rate was further increased to $30 (CAD)/$tCO_2e$ or $23 (USD)/$tCO_2e$. *See* Press Release, CCEMC, *Climate Change and Emissions Management (CCEMC) Corporation to announce funding for 13 small and medium sized businesses* (Oct. 31, 2012).

112. Exxon was undoubtedly subject to these regulations and well over the minimum threshold. In 2013, for example, the Kearl Operation emitted a total of 720,535 tCO_2e. *See* Alberta Greenhouse Gas Reporting Program Facility Database. Emissions at Kearl rose dramatically from 2013 to 2015, as shown in the chart below:



113. Additional regulations on GHG emissions have followed. In November 2015, the government of Alberta announced a supplemental plan to establish an economy-wide carbon tax and impose a cap on emissions on the oil sands. In June 2016, the OECD issued a report supporting this mission, stating that "Canada needs to step up its efforts to fight climate change." OECD, *Promoting Green and Inclusive Growth in Canada* (June 2016), at Foreword. The report noted that Alberta, which accounted for 36.8% of Canada's 726 megatons of carbon dioxide equivalent ("Mt CO_2e") emitted in 2013, has "high energy-related emissions and relatively low effective carbon prices." *Id.* at 32. In 2017, Alberta will begin transitioning to the economy-wide carbon pricing system through implementation of a carbon tax that will work alongside the SGER. This carbon tax will not replace the Fund, but rather puts a price on GHG that were not covered under the existing carbon pricing initiative. The new carbon tax rates implemented as of January 1, 2017 were \$20 (CAD)/tCO_2e or \$15 (USD)/tCO_2e. In 2018, the rate goes up to \$30 (CAD)/tCO_2e or \$23 (USD)/tCO_2e.

D. Exxon's Rocky Mountain Dry Gas Operations

114. In the late-2000s, Exxon realized that its domestic natural gas reserves were deteriorating. At the time, Exxon was ranked as only the 9th largest natural gas producer in the United States and was facing difficulties in replenishing its natural gas resources. In addition to its

anemic production numbers, Exxon realized that its technological capabilities in the natural gas extraction field were falling behind competitors. For example, Exxon had largely missed out on the extensive expansion in the technology of hydraulic fracturing or "fracking," which was being used to extract "tight" gas resources.

115. In 2007 through 2009, Exxon reported its worst years ***ever*** for its reserve replacement rates. While Exxon officially reported a reserve replacement rate of 108% in 2008, this was only achieved after the SEC definition was changed that year to permit unconventional sources to be included within reserve calculations for the first time ever. This allowed Exxon to include controversial oil sands in its reserve reporting. Removing this addition from the calculation, Exxon's reserve replacement rate was only 27% in 2008. The Oil Drum, *Exxon Mobil's Acquisition of XTO Energy – The Fallacy of the Manufacturing*, Feb. 22, 2010.

116. As a result, Exxon looked to buy a large, domestic natural gas company with technological capabilities in fracking. One of the largest natural gas producers in the United States at this time was XTO Energy, Inc. ("XTO").

117. In December of 2009, Exxon announced it was acquiring XTO. The all-stock deal was valued at between $36 billion and $41 billion, with Exxon also agreeing to assume $10 billion of XTO's debt obligations.

118. In an Exxon news release dated December 14, 2009, Defendant Tillerson commented as follows:

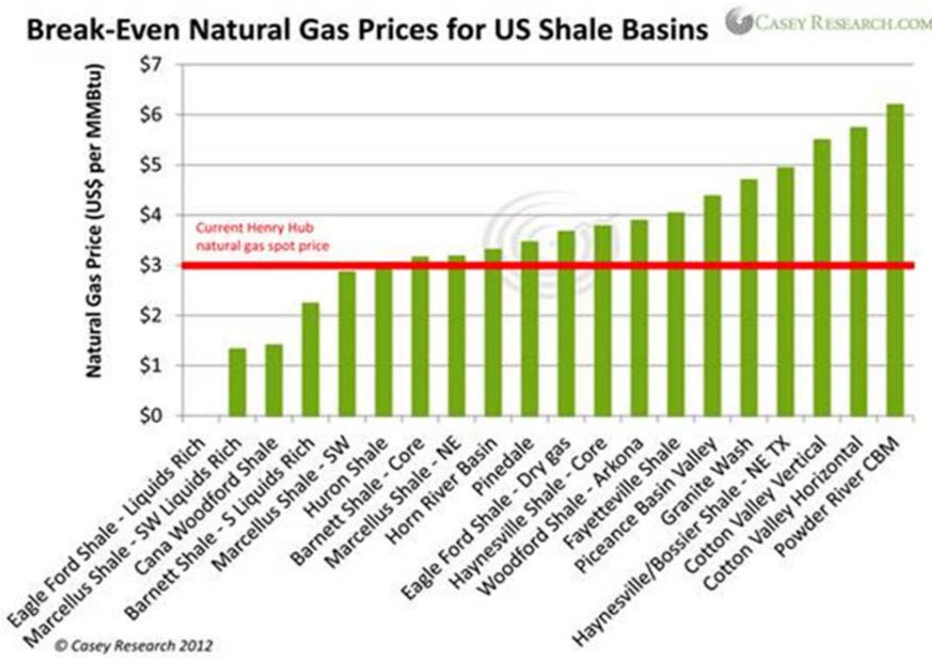
> "XTO is a leading U.S. unconventional natural gas producer, with an outstanding resource base, strong technical expertise and highly skilled employees. XTO's strengths, together with ExxonMobil's advanced R&D and operational capabilities, global scale and financial capacity, should enable development of additional supplies of unconventional oil and gas resources, benefiting consumers both here in the United States and around the world."

119. XTO's natural gas resources were located in the Green River Basin in Wyoming, the Powder River Basin in Wyoming, the Uinta-Piceance Basin in Utah and Colorado, and the San Juan Basin in New Mexico, among others. At year-end 2009, XTO reported 14.8 trillion cubic feet of proved reserves of natural gas. The vast majority of XTO's production, over 80%, came from tight gas, conventional gas and coal-bed methane reservoirs, as opposed to conventional shale gas.

120. Through its acquisition of XTO, Exxon became the largest domestic natural gas producer in the United States and gained approximately 45 trillion cubic feet of gas resources, including shale gas, tight gas, coal bed methane and shale oil. As of 2017, Exxon owned approximately 1.7 million acres of land for dry gas production in the U.S. Rocky Mountain region, nearly all of which were obtained through the XTO acquisition.

121. As of December 14, 2009, the Henry Hub price for natural gas was $5.41 per million British thermal units ("BTUs").

122. Shortly after Exxon's acquisition of XTO, the price for natural gas began to decline. By April 20, 2012, the Henry Hub pricing for natural gas had fallen as low as $1.82 per million BTUs. According to a July 31, 2012 report from Casey Research, shown below, the breakeven prices for natural gas operation in several of the basins where Exxon was operating at the time – including the Piceance Basin, the Haynesville Basin and the Powder River Basin – were significantly higher than the current Henry Hub spot price at the time.



123. In an article dated June 27, 2012 in *The Wall Street Journal*, Defendant Tillerson was quoted as follows in a talk before the Council on Foreign Relations in New York about the natural gas market: "'We are all losing our shirts today. . . . We're making no money today. It's all in the red.'" J. DiColo & T. Fowler, *Exxon: 'Losing Our Shirts' on Natural Gas*, Wall St. J., June 27, 2012.

124. On May 8, 2013, the SEC sent a letter to Exxon requesting that it explain whether Exxon had performed an impairment analysis in 2012 as a result of the significant decline in the price of natural gas.

125. On June 19, 2013, Exxon responded, admitting that it had not performed an impairment analysis:

> [T]he Corporation, in general, does not view temporarily low prices or margins as a trigger event for conducting impairment tests. The markets for crude oil and natural gas have a history of significant price volatility, as evidence by our response . . . where we note that average monthly prices for the U.S. Henry Hub benchmark have risen over 100% from $2.03 per MBTU in May 2012 to $4.17 per MBTU in May 2013. Industry prices over the long term will continue to be driven by global market supply and demand.

126. In a letter dated September 20, 2013, the SEC again confronted Exxon about its failure to consider low natural gas prices as a triggering event requiring the Company to undertake an impairment review pursuant to the applicable SEC guidelines.

127. In its response to the SEC's inquiry, on October 18, 2013, Exxon admitted it had not performed an impairment review of its North American upstream assets, but claimed that it was not required to do so under the applicable SEC rules because:

> a) The referenced assets were not subject to a significant decrease in market value. Because the lifespans of the vast majority of North American natural gas assets are measured in decades, the value of these assets is predominantly based on long-term views of future commodity prices and production costs. While near-term prices are subject to wide fluctuations, longer term price views are more stable and meaningful for purposes of assessing future cash flow projections which serve as a basis of market value. A limited period of historically low natural gas prices had only a limited impact on longer term price expectations, and therefore did not significantly change our view of North American upstream assets' market value.
>
> b) The referenced assets did not undergo a significant adverse change in the extent or manner in which they were being used, or in their physical condition. Our long-term plans for development of our North American gas resources did not change as a result of short-term, depressed natural gas prices.
>
> c) The referenced assets did not undergo a significant adverse change in the legal environment, the business climate, or action by a regulator. We believe the future prospects for natural gas development in North America remain robust, and no single event, or combination of events occurring in 2012 changed our view that the assets' carrying values continue to be recoverable.

E. Exxon's Purported Use of a "Carbon Proxy" in Connection with Its Reserves

128. Exxon purports to "rigorously consider the risk of climate change in our planning bases and investments," and has repeatedly represented to investors that a "proxy cost" of carbon is included in all of its investment decisions, internal reserve estimates and impairment decisions. Based on these representations, Exxon has repeatedly assured investors that the Company's assets can and will withstand increasingly stringent future climate change-related policies, as well as climate

change-related and consumer-driven market impacts. As described below, however, Exxon's representations were false and misleading.

129. Beginning in 2007, Exxon began publicly disseminating its forecast called the Outlook. The Outlook conveys the Company's views on energy and is purportedly "the foundation" for Exxon's investment planning and business decisions. According to the E&C Report, Exxon's Management Committee and Board review and discuss the Outlook "***extensively***" prior to release.

130. Exxon has publicly represented on numerous occasions that the Company "address[es] the potential for future climate-related controls, including the potential for restriction on emissions, through the use of a ***proxy cost of carbon***," which, according to Exxon, is "***embedded***" in the Company's Outlook. Specifically, in its E&C Report, Exxon stated that "in the OECD nations [which include Canada and the United States], we apply a proxy cost that is about $80 per ton in 2040." The E&C Report also stated that Exxon "requires that ***all business units*** use a consistent corporate planning basis, including the proxy cost of carbon . . . , in evaluating capital expenditures and developing business plans."

131. Exxon has represented that the proxy cost of carbon applied to OECD nations is intended to account for ***potential future*** climate-related policies, including the expectation that future government policies to reduce GHG emissions will become more restrictive over time. According to Exxon, the proxy cost is intended to "reasonably reflect the types of actions and policies that governments may take over the outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels."[17]

132. In 2010, Exxon forecast in its Outlook that the cost of CO_2 emissions in OECD nations would reach $30 per ton by 2020 and $60 per ton in 2030. Exxon estimated this doubling of the rate

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[17] In submissions to the Carbon Disclosure Project ("CDP"), Exxon stated that "approximately 90 percent of petroleum-related GHG emissions are generated when customers ***use*** our products and the remaining 10 percent are generated by industry operations."

over ten years because many governments were seeking to enact policies that put a cost on CO_2 emissions. Exxon acknowledged that "[a]s CO_2 costs go up, economics shift. . . . This shift becomes even more pronounced if CO_2 costs rise to $60 per ton, which is where we anticipate policies in the OECD will drive costs by 2030."

133. In 2012, the Company expanded its Outlook based upon the expectation that governments would set policies imposing costs on CO_2 and other emissions. These expectations were "integral" to its forecast and led Exxon to anticipate that costs in the OECD nations would reach $80 per ton by 2040.

134. Exxon's 2013 submission to the CDP further disclosed that "OECD countries will continue to lead the way in adopting [emissions] policies, with developing nations gradually following, led by China." The Company further assured investors that the increasingly stringent proxy cost had been "embedded in our outlook since 2007" and that Exxon's "investment decisions are based on our long-term business outlook."

135. As detailed *infra*, Defendants made numerous public statements regarding the Company's purported use of a carbon or GHG proxy cost throughout the Class Period in Exxon's SEC filings, as well as during conference calls and meetings with investors and analysts, and in various statements issued by Exxon in the media and other outlets. *See* §V.A., *infra*.

136. Indeed, during the Class Period, Defendant Tillerson unequivocally stated to investors that Exxon's proxy cost of carbon was applied across all of the Company's corporate decisions, specifically stating in May 2016:

> We have, unlike many of our competitors, we have for many years included a price of carbon in our outlook. And that ***price of carbon gets put into all of our economic models when we make investment decisions*** as well.
>
> It's a proxy. We don't know how else to model what ***future policy impacts*** might be. But whatever policies are, ultimately they come back to either your revenues or your cost. So we choose to put it in as a cost.

> So we have accommodated that uncertainty in the future, and ***everything gets tested against it***.

137. According to internal Exxon documents produced to the NYOAG and a sworn affirmation provided by the NYOAG under penalty of perjury, Exxon's Class Period statements regarding the Company's purported use of a carbon or GHG proxy cost were false and misleading.[18] Indeed, contrary to Defendant Tillerson's statement to investors, "everything" ***did not*** get tested against Exxon's purported carbon proxy cost.

138. Among other things, the NYOAG Evidence reveals that:

- Exxon's internal policies actually prescribed the use of a ***separate, undisclosed*** set of carbon proxy costs that were ***significantly lower*** than those described by the Company's numerous public statements concerning Exxon's investment and asset valuation processes (*see* Oleske Affirmation, ¶¶21-27);

- "Exxon has not applied a proxy cost of GHGs ***at all*** with respect to ***many*** of its oil and gas projects," including the Canadian Bitumen Operations (*id.*, ¶¶28-37);

- "[I]n the few instances where Exxon tried to apply some semblance of a proxy-cost, Exxon failed to include costs relating to end use, or Scope 3, emissions," contrary to Defendants' public representations that "[t]he proxy cost seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to . . . ***transportation or use*** of carbo-based fuels" (*id.*, ¶¶38-40; Oleske Affirmation, Ex. 1); and

- "[A]t least until 2016, Exxon ***failed to apply a proxy cost*** of GHGs in determining whether its long-lived assets, such as oil and gas reserves and resources, were impaired, ***rendering its representations false and misleading***" (Oleske Affirmation, ¶¶41-52).

139. More specifically, with regard to Exxon's internal policies, the Oleske Affirmation's sworn testimony states that "Exxon represented to investors and the public that it was incorporating

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[18] The internal Exxon documents discussed in this section (the "Oleske Exhibits") and the Oleske Affirmation (collectively with the Oleske Exhibits, the "NYOAG Evidence") have been made publicly available through filings in connection with civil litigation pending in the Supreme Court of the State of New York. *See People of the State of New York v. PricewaterhouseCoopers LLP, et al.*, No. 451962/2016 (N.Y. Sup. Ct., N.Y. Cty.) ("NYOAG Subpoena Action"). The NYOAG Subpoena Action concerns the NYOAG's efforts to enforce compliance with subpoenas issued to Exxon and PricewaterhouseCoopers LLP ("PwC"), in connection with the NYOAG's investigation of Exxon.

higher costs of GHG regulation into its business decisions ***than documents indicate that it actually was using***, thereby potentially ***misleading investors*** and the public about the extent to which [Exxon] was protecting its business from regulatory risks related to climate change." *Id*., ¶21. Specifically, the Oleske Affirmation states: "Exxon publicly stated in the MTR Report and its *Outlook for Energy* reports that for projects in developed countries [including Canada and the U.S.], it applied proxy costs that reached $60/ton of GHGs by 2030, and $80/ton by 2040. In fact, ***the proxy cost figures used for Exxon's internal planning and budgeting reached only $40/ton by 2030***." *Id*., ¶22; *see also* Oleske Affirmation, Exs. 3-5.

140. Moreover, according to the NYOAG Evidence, the discrepancy between Exxon's internal policies and public representations "***was known at Exxon's highest levels***." Oleske Affirmation, ¶¶23-24; Oleske Affirmation, Exs. 3-5. For example, in an April 2011 email exchange between Exxon's Corporate Greenhouse Gas Manager and an Exxon Corporate Strategic Planning Manager discussing the two different sets of proxy costs, the latter stated: "I have pointed out the difference in past reviews – we've been at $60 for the [Outlook] and $40 for the plan circa 2030 for several years. ***[Defendant] Rex [Tillerson] has seemed happy with the difference previously***." Oleske Affirmation, Ex. 4; Oleske Affirmation, ¶24. In an April 2010 email exchange between the same two employees, Exxon's Corporate Greenhouse Gas Manager acknowledged that the publicly disclosed proxy cost figures were "'***more realistic***'" than those that Exxon actually used. Oleske Affirmation, ¶23; Oleske Affirmation, Ex. 3.

141. According to the NYOAG Evidence, "[i]t was not until June 2014 that Exxon sought to eliminate this glaring inconsistency between external and internal figures." Oleske Affirmation, ¶25. At that time, Exxon's new Corporate Greenhouse Gas Manager acknowledged Exxon's "'non-conservative'" internal GHG proxy costs, and specifically noted that "'***we have implied that we use the [publicly-disclosed] basis for proxy cost of carbon when evaluating investments***.'" *Id.*; Oleske

Affirmation, Ex. 5. A subsequent email exchange between Imperial Development Planner Jason Iwanika and Exxon's Corporate Greenhouse Gas Manager confirmed that the undisclosed alignment of Exxon's internal and external proxy cost figures in 2014 was a "'huge change.'" Oleske Affirmation, ¶26; Oleske Affirmation, Ex. 6. By that point, however, countless Exxon investment decisions, including those pertaining to the Canadian Bitumen Operations and Exxon's acquisition of XTO, both discussed further *supra*, had been subject to the application of internal policies that prescribed the use of ***significantly lower*** carbon proxy costs than those the Company represented it used in connection with its business decisions in order to account for the potential risks of future climate change-related actions.

142. Moreover, according the NYOAG Evidence, "***Exxon has not applied a proxy cost of GHGs at all with respect to many of its oil and gas projects***," in direct contrast to the Company's public statements to investors. Oleske Affirmation, ¶28. Specifically, according to the sworn testimony in the Oleske Affirmation, "by 2015, [Exxon] faced a problem with respect to" the profitability of the Canadian Bitumen Operations. *Id.*, ¶29. As a result, "according to evidence reviewed by OAG," application of Exxon's publicly stated carbon proxy costs to the Canadian Bitumen Operation "may have rendered at least one [such] project[] ***unprofitable over the life of the project***." *Id.* According to the Oleske Affirmation, the "company's response was not to faithfully apply the proxy-cost analysis and recognize losses as appropriate," instead, "Exxon decided in the fall of 2015 to abandon the proxy-cost figures applicable to [the Canadian Bitumen Operations] that were set out in its internal policies, and decided instead to apply the current, much lower GHG tax that existed under Alberta law at that time." *Id.*, ¶30.

143. Specifically, according to the Oleske Affirmation's sworn testimony:

> "The proxy cost analysis set out in Exxon's internal policies required the incorporation of an escalating GHG cost, reaching $80/ton of carbon dioxide (or CO_2 equivalent in other GHGs) by 2040, into the company's economic forecasting for

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> purposes of corporate decision-making. Instead of applying this analysis, Exxon applied the Alberta GHG tax, which did not exceed $24/ton (U.S. currency), and held that figure flat indefinitely into the future [in a manner that] result[ed] in an effective cost of ***less than $4/ton***.

Oleske Affirmation, ¶31.

144. By applying only a portion of an ***already existing*** GHG tax, and holding "that figure flat indefinitely into the future," Exxon's actual practices contradicted both the Company's internal policies (as described above) and Defendants' representations to investors. Indeed, as noted *supra*, Exxon's representations to investors indicated that the Company applied its GHG or carbon "proxy cost" as a means for "model[ing] a wide variety of ***potential policies*** that might be adopted by governments to help stem GHG emissions" (Oleske Affirmation, Ex. 6), and specifically stated that "in the OECD nations [which include Canada], we [the Company] apply a proxy cost that is ***about $80 per ton*** in 2040."

145. In addition, the Oleske Affirmation establishes that, "at least until 2016, Exxon ***failed to apply a proxy cost*** of GHGs in determining whether its long-lived assets, such as oil and gas reserves and resources, were impaired, ***rendering its representations false and misleading***." Oleske Affirmation, ¶41.

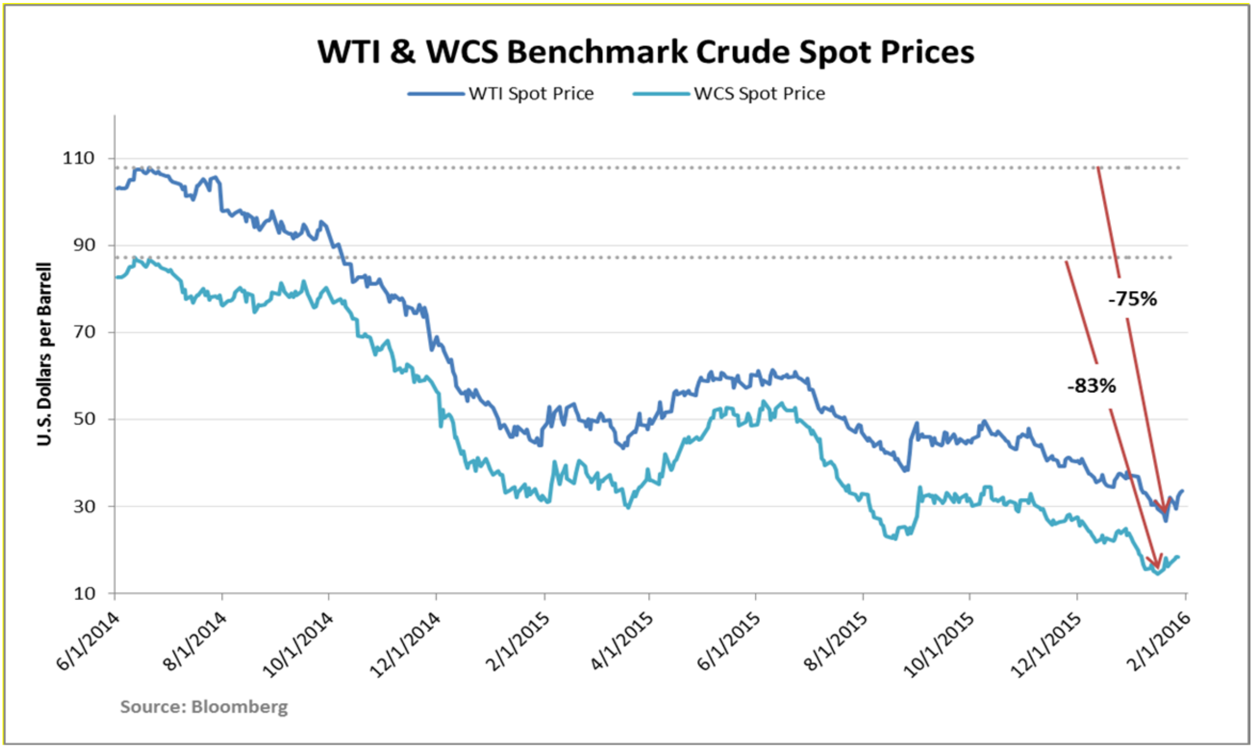
146. As detailed *infra*, for the purposes of developing "future cash flows used to test the recoverability of a long-lived asset," such an oil and gas reserve, GAAP requires that a company must "incorporate the entity's own assumptions . . . and shall consider all available evidence." *See* ¶330, *infra*. Pursuant to these guidelines, Defendants have represented to investors: "Cash flows used in impairment evaluations . . . make use of the Corporation's price, margin, volume, ***and cost assumptions developed in the annual planning and budgeting process, and are consistent with the criteria management uses to evaluate investment opportunities***." 2015 Form 10-K at 70.

147. Contrary to the foregoing, the Oleske Affirmation establishes that Exxon made "no attempt at all . . . to incorporate a proxy cost of GHGs into the economic models of cash flows used in

determining whether a trigger for impairment testing existed or whether Exxon's assets were actually impaired prior to 2016," notwithstanding Defendants' representations to investors that the use of a carbon proxy cost constituted a critical component of Exxon's business decisions and investment evaluation processes. Oleske Affirmation, ¶49; *see also* ¶¶129, 139, *supra*. As a result, the Oleske Affirmation concludes that Exxon "misled investors about the value of the company's assets and its risk management processes in light of the dual challenges of ongoing low oil and gas prices and growing GHG costs over time." Oleseke Affirmation, ¶51.

F. Oil and Gas Prices Begin a Prolonged Slump in 2014

148. In 2014, after years of relatively stable, record-high global oil price levels, oil and gas prices began a spectacular multi-year collapse. Prices continued a prolonged tumble into early 2016, and have not substantially recovered to this day. In what has been called the great oil crash of 2014, ***global prices fell at least 75%***. For example, the U.S.-based crude benchmark, WTI, plummeted 75% from its June 2014 high of $107.95 per barrel to a low of $26.68 per barrel in January 2016. The benchmark for oil produced by Exxon's Canadian Bitumen Operations, WCS, ***fell a staggering 83%*** from its June 2014 high of $87.23 per barrel to $14.50 per barrel in January 2016:



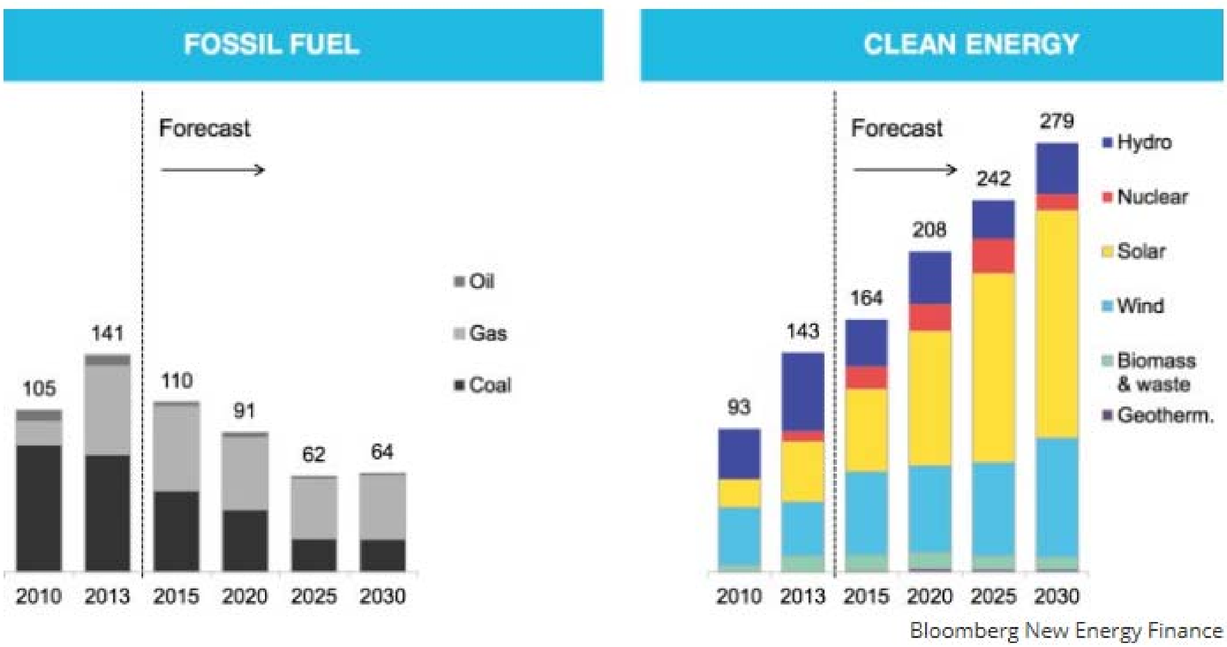
149. It was evident within months that this price collapse was fundamentally different and more destructive than oil price declines in earlier decades. On February 11, 2015, the International Energy Agency ("IEA") published its 2015 Medium-Term Oil Market Report, which described the perfect storm of converging factors that made the current collapse unique and the prospects of recovery bleak:

> ***Unlike earlier price drops, this one is both supply- and demand-driven, with record non-OPEC supply growth in 2014 providing only one of the factors behind it, unexpectedly weak demand growth another***. On the supply side, US light, tight oil (LTO) extraction technologies, which at the time of the previous market correction barely registered as a source of production, have unlocked a vast resource that long seemed off-limits, and have profoundly upended the traditional division of labour between OPEC and non-OPEC. The latest price drop is also occurring at a time when the dynamics of global demand and the place of oil in the fuel mix are undergoing dramatic change. Emerging economies – China chief among them – which 10 years ago seemed an unstoppable engine of near-vertical demand growth, have entered a new, less oil-intensive stage of development. ***The global economy, reshaped by the information technology revolution, has generally become less fuel intensive. Concerns over climate change are recasting energy policies***. And the globalisation of the natural gas market, coupled with steep reductions in the cost and availability of renewable energy, are causing oil to face a level of inter-fuel competition that would have seemed unfathomable a few years ago.

150. Similarly, in January 2016, Exxon's own independent accounting firm stated that the underlying factors contributing to the price collapse would not improve in 2016. Rather, PwC predicted that conditions would continue to deteriorate for the remainder of the year:

> ***The sensational drop in oil prices – below US $40 per barrel at the end of 2015, down more than 60 percent from their high in the summer of 2014 – reflects rampant supply and weak global demand*** amid concerns over slowing economic growth around the world, especially in China. ***This imbalance is only going to worsen this year***.[19]

151. At the same time, the fossil fuel industry was also facing increased competition from renewable energy resources, further weakening global demand for oil. As reported by *Bloomberg* on April 14, 2015, in 2013 renewable energy added more capacity than coal, natural gas and oil combined, putting additional pressure on the fossil fuel sector:



152. In 2015, the trend toward renewable energy continued to set new records and place additional strain on the already struggling fossil fuel industry. According to the 2016 Global Trends in Renewable Energy Investment report commissioned by the United Nations Environment

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[19] A. Clark & A. del Maestro, *2016 Oil and Gas Trends*; *Tumbling oil prices are bad enough, but are you prepared for a future that limits fossil fuels*?, PwC, Jan. 21, 2016.

Programme, investment and new capacity in renewables outpaced that of fossil fuels in 2015. The Secretary General to the United Nations, Ban Ki-Moon, stated that "[i]nvestments reached nearly $286 billion, more than six times more than in 2004, and, for the first time, ***more than half of all added power generation capacity came from renewables***."

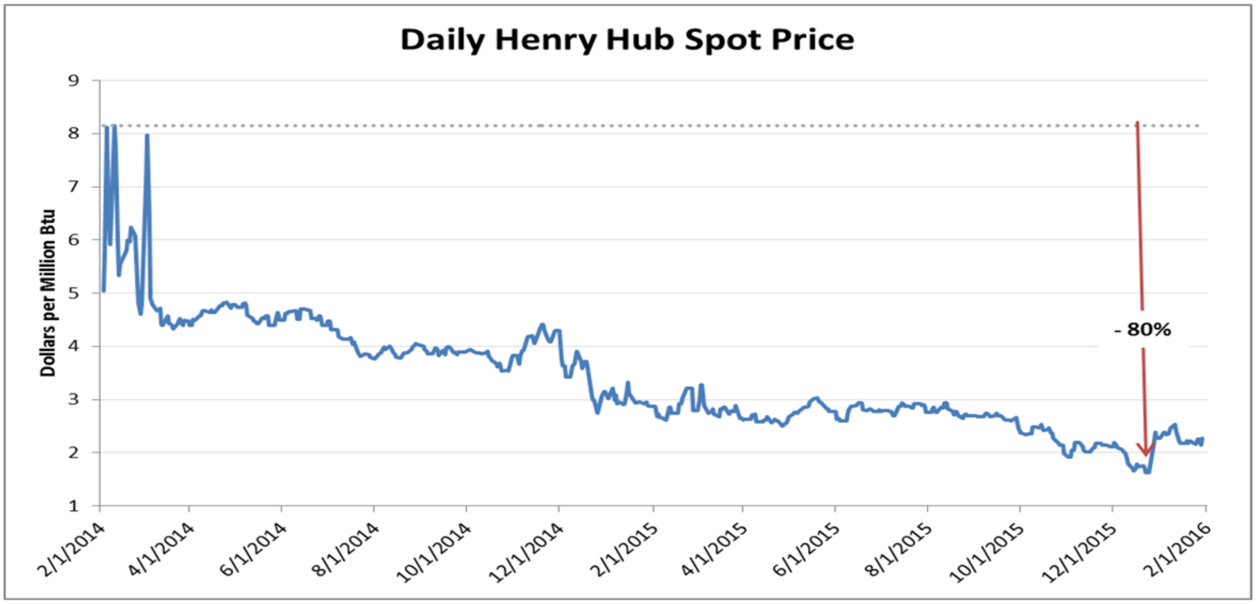
153. The continuing trend toward clean energy is undeniable and is a marked shift away from dirty fossil fuels. On July 11, 2017, *Bloomberg* reported that 2016 investments in electricity outpaced all investments in oil, gas and coal. According to the IEA, renewable energy made up 80% of all electricity investment in 2016. The chief economist of the IEA noted the dramatic shift away from fossil fuels, stating: "'***Oil and gas was the largest investment source for 100 years. This changed in 2016 . . . . With robust investment in renewable energy, increased investment into electricity networks, electricity is now the biggest area of capital investment***.'"

154. The increased competition from clean energy coupled with the negative impact of the price collapse on integrated and upstream oil companies has been severe. As PwC observed, upstream profits for fossil fuel companies like Exxon evaporated in 2014 and 2015, and the industry was forced to institute massive cost cutting measures, layoffs and project cancellations to stem the financial hemorrhaging:

> The impact of this situation on O&G producers has been rapid and dramatic. In the third quarter of 2014, when oil prices were still above $100 per barrel, the supermajors posted aggregate net income of $22.9 billion, according to Bloomberg. ***Twelve months later, upstream profits had been wiped out. In response, companies are slashing outlays. They are expected to cut capital expenditures by 30 percent in 2016. Already, some $200 billion worth of projects have been canceled or postponed***. Both international and national oil companies are negotiating aggressively for 10 to 30 percent discounts from oil-field service providers. Head counts are affected as well. More than 200,000 employees have been or will be let go in the O&G industry, according to recent company announcements.[20]

[20] A. Clark & A. del Maestro, *2016 Oil and Gas Trends*; *Tumbling oil prices are bad enough, but are you prepared for a future that limits fossil fuels*?, PwC, Jan. 21, 2016.

155. Natural gas prices also steeply descended. In early 2014, the Henry Hub benchmark price for gas reversed course and slid for almost 2 years, dropping an incredible ***80%*** from the February 2014 price of $8.15/per million BTU to $1.63/per million BTU in December 2015:

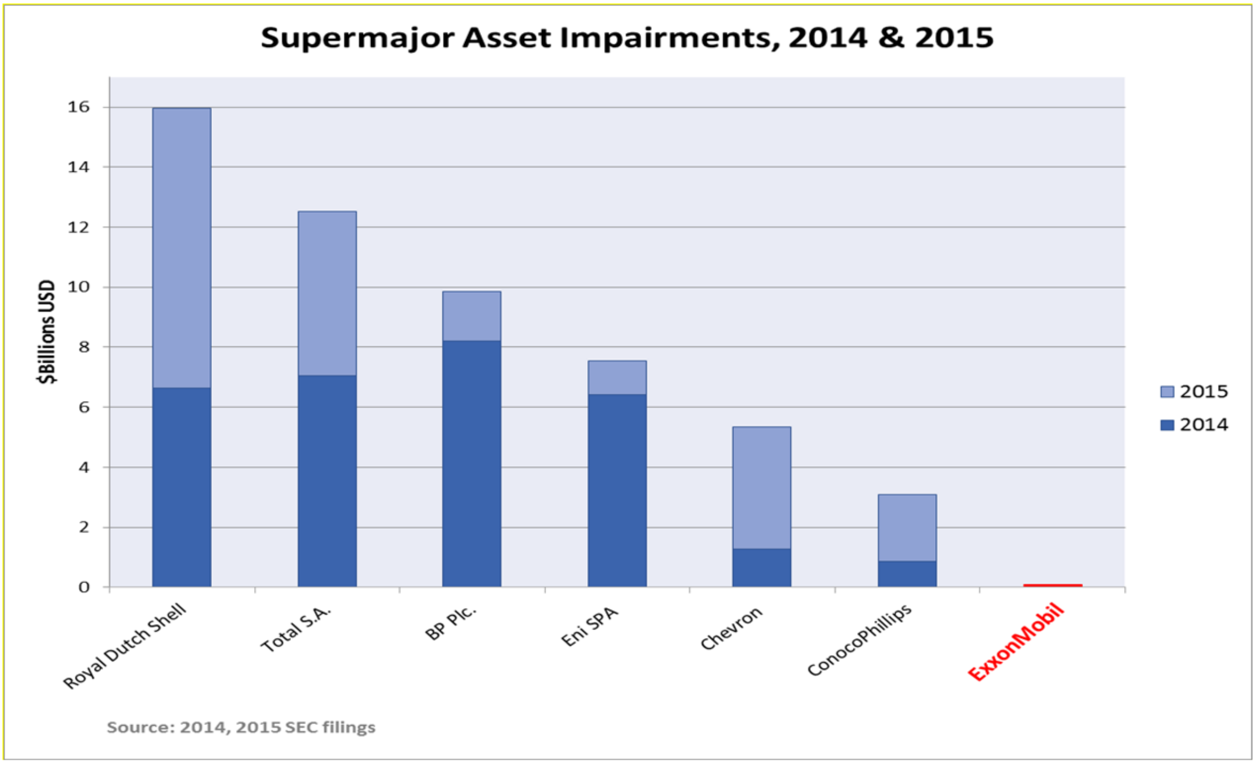


1. Exxon's Competitors Take Massive Impairment Write-Downs

156. The value of a company's capitalized oil and gas assets are tied to the current and expected future price of oil and gas. Because of this, the global price collapse, combined with persistently low oil prices and a darkly pessimistic global price outlook, caused massive industry-wide write-offs in 2014 and 2015. On September 13, 2015, *The Wall Street Journal* reported that in the first two quarters of the year, U.S. oil and gas companies had already "written down the value of their drilling fields by more in 2015 than any full year in history, as the rout in commodity prices makes properties across the country not worth drilling." According to IHS Herold, over 60 oil and gas producers took impairment charges totaling $59.8 billion through June 2015, and an IHS analyst predicted that "***[t]here will be pricing impairments for the next two quarters, at least***." In fact, by

year-end 2015, U.S. oil companies, many with significant Canadian oil sands holdings, took almost ***$200 billion***[21] in project-related asset impairments.

157. Indeed, as illustrated by the diagram below, Exxon's refusal to record impairment during 2014 and 2015 stood in stark contrast to its peers, which took billions of dollars in impairments during this timeframe:



158. Notably, by 2015, Exxon's peers had recognized huge asset impairment write-downs in the same Rocky Mountain and Canadian regions where Exxon was operating. Canadian oil sands operators were hit particularly hard, as low oil prices led to the cancellation or indefinite postponement of at least 17 large oil sands projects. In March 2016, Canadian economist and energy expert Jeff Rubin wrote:

> Even elusive world oil prices – let alone the deeply discounted WCS price that oil sands producers receive – now cover little over half the hurdle prices needed to economically justify most future oil sands projects. Faced with collapsing prices,

21 M. Young, *Energy Company Impairment Charges Down in U.S.*, Alberta Oil, Feb. 16, 2017.

> many of those projects that were intended to supply the new pipelines have already been axed.
>
> Investment spending in the oil industry has fallen globally in the wake of collapsing oil prices, but as the highest-cost producers in the world supply chain, oil sands projects have been hit the hardest. ***Of the 33 largest oil and gas projects in the world that were cancelled in 2015, almost half were oil sands*** projects. . . . All told, as many as 17 oil sands projects have already been cancelled or indefinitely mothballed . . . .
>
> * * *
>
> By January 2016, WCS had fallen below US $15 a barrel . . . less than half the average cost of current production. ***Today's depressed level of oil prices not only precludes new expansion projects, but also calls into question the very sustainability of current production levels of some 2.3 million bpd.***[22]

159. Consequently, small and large oil companies alike were walking away from current projects, shelving future expansion plans, and recording significant asset impairments for existing oil sands projects. For example, Royal Dutch Shell took a $2 billion impairment charge and de-booked 420 million barrels of proved bitumen reserves, walking away from a major oil-sands project in northern Alberta. On October 27, 2015, *The Wall Street Journal* reported Shell's misfortune and the plight of other bitumen operators:

> Royal Dutch Shell PLC said Tuesday it would abandon the construction of a major oil-sands project in Western Canada and take a $2 billion write-down, a stark reflection of the challenging economics for unconventional oil projects amid a sharp slump in crude prices.
>
> * * *
>
> The move by Shell comes after several other undeveloped oil-sands projects have been deferred due to cost issues and raises questions about how much of Canada's oil-sands, the world's third-largest source of untapped crude, can be recovered profitably. Earlier this year, three major Canadian energy companies said they would shelve plans for new or expanded oil-sands projects and last year France's Total SA and Statoil AS A of Norway indefinitely postponed projects even before the collapse of crude prices.

[22] J. Rubin, *The Future of Canada's Oil Sands in a Decarbonizing Global Economy*, CIGI Papers, No. 94 , Mar. 7, 2016, at 4.

160. The president of Shell Canada, Lorraine Mitchelmore, said last year that the company's oils and business needs Brent crude, the global oil benchmark, to trade above $70 a barrel to meet internal yardsticks for profitability. But prices for Brent have slumped in recent months and have traded below $50 a barrel.

161. Many other global oil companies – including supermajors, large independents and state-owned oil companies – recorded significant asset impairments to oil sands operations in 2014 and 2015, including several multi-billion dollar impairments. On February 17, 2017, *The Wall Street Journal* reported that "Global companies such as Statoil ASA and Royal Dutch Shell PLC that raced to build massive industrial projects in Canada have been forced to lower the value of their oil sands investments. Since 2012, the write-downs from those companies and Canadian producers have exceed [sic] $20 billion."[23] For example, a significant portion of the multi-billion dollar impairment charges taken in 2014 or 2015 by each of ConocoPhillips, Total S.A., Chevron, BP plc, CNOOC, PetroChina, Devon Energy Corp., and Murphy Oil Corp were related to oil sands projects.

162. In addition, a significant number of Canadian-based public upstream oil and gas operators also recorded material impairments of oil sands assets in 2014 and 2015, including:

Canadian Oil & Gas Firm write-downs that include Oil Sands related Asset Impairments:
In millions USD

	2014	2015
Suncor Energy	$223.0	$96.0
Connacher Oil and Gas Limited	-	$188.4
Pengrowth Energy Corporation	$439.0	$629.6
Harvest Operations Corp.	$241.6	$824.9
Athabasca Oil Corporation	$145.4	billion.
Sunshine Oilsands Ltd.	-	$159.3
Baytex Energy Corp.	-	$807.3
BlackPearl Resources Inc.	-	$25.7
Teck Resources Limited	$10.8	$2,822.3

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23 S. Kent, B. Olsen & G. Kantchev, *Energy Companies Face Crude Reality: Better to Leave It in the Ground*, Wall St. J., Feb. 17, 2017.

163. Due to a similar precipitous decline in gas prices, a significant number of Exxon's peers in the natural gas business also took impairment charges in 2014 and 2015. For example, companies that took impairments in developed and undeveloped natural gas operations in the Rocky Mountain Region throughout 2014 and 2015 included: Ultra Petroleum Corp. ("Ultra Petroleum"); Vanguard Natural Resources, LLC ("Vanguard"); and Breitburn Energy Partners LP ("Breitburn") (collectively, the "Peer Rocky Mountain Dry Gas Operators"). A review of the 2014 10-K and 2015 10-K filings for each of the Peer Rocky Mountain Dry Gas Operators reveals that declining prices were a primary factor for impairment:

- On February 26, 2016, Breitburn filed its 2015 Form 10-K, confirming a $2.4 billion impairment charge, including $147.9 million related to Rocky Mountain natural gas, "primarily due to the impact that the sustained drop in commodity strip prices had on our projected future net revenues."

- Ultra Petroleum tested its assets for impairment, and, "based upon the average of quoted market prices in effect on the first day of the month for the preceding twelve month period at December 31, 2015," revealed that its assets were impaired by $3.1 billion.

- Vanguard reported impairments of $1.8 billion in its 2015 10-K, specifically noting that the most significant factors causing the write-down included "declining oil and natural gas prices."

164. The impact of declining prices in the Rocky Mountain dry gas regions was also reported in a March 24, 2015 Platts Gas Daily article, which stated that well starts in the top-five natural gas producing basins in the Rocky Mountains "have lagged last year's levels by about 25% as low commodity prices have strained drilling economics in the region . . . . The main causes have been lower gas and crude prices this year."

2. Exxon Is Impacted by the Price Declines, but Refuses to Record Any Impairment Write-Downs

165. The financial impact of the price collapse on Exxon was severe, particularly in the Company's all-important upstream segment. Indeed, Exxon's upstream segment revenues dropped from $37.2 billion in 2014, to $20.2 billion in 2016 – a 46% drop over two years. Moreover,

upstream segment earnings fell off a cliff during this same period – from $27.5 billion in 2014 to just $200 million in 2016 – ***a 99% decrease in two years***. Cash flows from operations also plummeted $15 billion, or 33%, from 2014 to 2015. As noted at ¶196, *supra*, without sufficient cash flow from operations, Exxon had to borrow to fund shareholder dividends and stock repurchases. Consequently, Exxon's long-term debt ballooned from $6.9 billion in 2013 to $19.9 billion at year-end 2015. Capital and exploration expenditures were also slashed. For example, despite trumpeting future plans to complete a third and fourth expansion phase at the Kearl mine to increase production, after low oil prices continued to persist into early 2015, such plans were quietly shelved.

166. Unlike its competitors, however, Exxon took no discernable asset impairments in 2014 or 2015. Despite vanishing upstream profits, industry-wide slashing of capital expenditures, widespread cancellation of new projects, layoffs throughout the industry and terrible supply and demand dynamics for oil and gas producers, Exxon was the lone "supermajor" oil and gas company that failed to record significant asset impairments during the prolonged price collapse. Exxon's brazen refusal to do so was typified by Defendant Tillerson's statement in 2015 that "***[w]e don't do write downs***."

167. Exxon's failure to record any such impairments, despite astonishing 85% and 80% drops in oil and gas prices, respectively, from 2014 to early 2016, was particularly noteworthy, given that Exxon was operating in the same geographic areas and was subject to the same market forces as its peers. Additionally, Exxon's peers, both domestic and international, followed uniform accounting standards, either the same U.S. accounting standards as Exxon, or international accounting standards that are reasonably consistent with U.S. standards with respect to the accounting rules for recognizing the write-down of long-lived asset impairments. Yet Exxon failed to respond to the declining market conditions by recognizing asset impairments, while most or all of the Company's peers and competitors did.

168. Industry commentators noticed Exxon's unique failure to record any discernable impairment write-downs. For example, on September 16, 2016, *The Wall Street Journal* reported that "Exxon's ability to avoid write-downs – and potential charges to earnings that come with them – has been among the factors helping the company outperform rivals since prices began falling in mid-2014. Exxon shares have fallen by about half of the average of Chevron Corp., Shell, Total SA and BP PLC. Since 2014, those four have booked more than $50 billion overall in write-downs and impairments." In the same article, *The Wall Street Journal* also noted analyst Paul Sankey's previous remarks that Exxon's failure to write down any of its reserve assets "'raises serious questions of financial stewardship,'" and that "'[i]t is ***impossible to believe that no assets have been impaired***.'" In addition, on October 26, 2016, the Institute for Energy Economics and Financial Analysis ("IEEFA") noted: "Every major oil company other than Exxon has written down assets on their balance sheets as a result of the down market, capital-expenditure reductions and weak price outlooks." T. Sanzillo, *Red Flags on ExxonMobil (XOM) – A Note to Institutional Investors*, IEEFA, Oct. 26, 2016, at 20.

G. By Year-End 2015, Exxon's Canadian Bitumen Operations Were No Longer Profitable and Its Rocky Mountain Dry Gas Operations Were Significantly Impaired

169. Despite Exxon's best efforts to portray itself as immune to the struggles experienced by its peers due to the prolonged oil and gas price declines during 2014 and 2015, the reality is that Exxon knew its operations were significantly impacted. Specifically, as detailed below, it is now clear that, by year-end 2015: (i) Exxon's Canadian Bitumen Operations were operating at a loss; (ii) the Kearl Operation was, at best, just barely satisfying the SEC's definition for proved reserves and was all but certain to lose that distinction in the near future; and (iii) substantial portions of the Company's Rocky Mountain dry gas operations were significantly impaired pursuant to ASC 360-10-05.

1. The Canadian Bitumen Operations

170. By mid-November 2015, if not earlier, Exxon's Canadian Bitumen Operations were losing money and there was no reason to believe the trend would be changing any time soon. This fact is confirmed by an analysis of the cash breakeven price for the Canadian Bitumen Operations during 2015 and 2016. As detailed in ¶60, *supra*, the cash breakeven price represents the average price per barrel needed in order for an upstream operation to covers its current-period out-of-pocket expenses. For the Canadian Bitumen Operations, the current-period out-of-pocket expenses include, at a minimum, the operations' production and royalty costs. Importantly, as noted *supra*, the cash breakeven price does not account for previously capitalized exploration and development costs, provide for future development expenditures, or provide a positive rate of return on the operator's investment in the project.

171. The Canadian Bitumen Operations' production and royalty costs for 2015-2016 were disclosed in Imperial's annual Report 51-101F1 filings for 2015 and 2016.[24] As detailed in the Wright Declaration, and summarized by the table below, the Canadian Bitumen Operations' reported production and royalty costs figures can be converted to USD using daily end-of-day Canadian exchange rates provided by the Bank of Canada. Wright Decl., ¶43. These figures – which represent the Canadian Bitumen Operations' average cash breakeven price for each quarter throughout 2015 and 2016 – can subsequently be converted to WCS cash breakeven prices by calculating the average quarterly WCS price discount differentials for the Canadian Bitumen Operations and adding those figures to Canadian Bitumen Operations' average cash breakeven price. *See id.*, ¶¶43-51. The results

[24] A Report 51-101F1, *Statement of Reserves Data and Other Oil and Gas Information*, filing is a document that all publicly traded Canadian companies with significant oil and gas activities must file on an annual basis with the Canadian Securities Administrators, an umbrella organization that coordinates the activity of securities regulators from Canada's ten provinces and three territories, including the Alberta Securities Commission.

of this analysis, which is further detailed in the Wright Declaration, are set forth in the following table:

Canadian Bitumen Operations' Average Minimum WCS Cash Breakeven Prices for 2015-2016

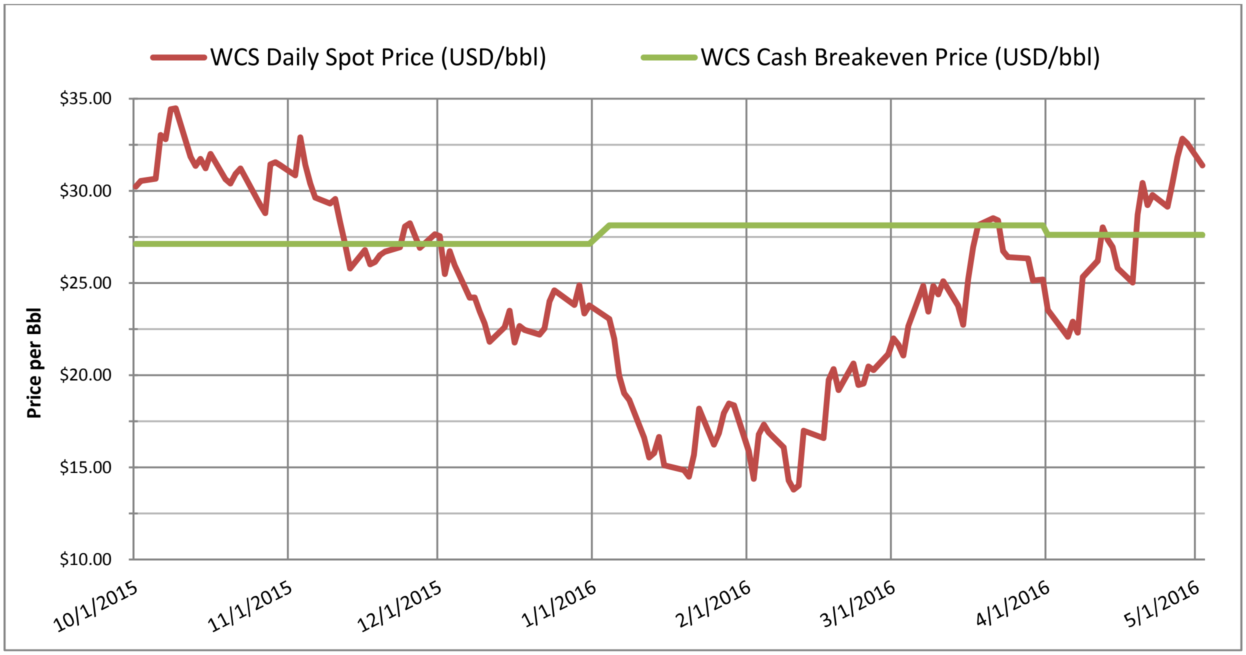
	Units	2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	3	Q4
Avg. Total Production and Royalty Cost/bbl	USD/bbl	27.24	24.31	20.61	17.94	fic .57	20.75	22.24	21.41
Avg. WCS Price Discount Differential	USD/bbl	11.32	4.48	3.63	9.19	10.55	6.86	5.15	5.99
Avg. Minimum WCS Breakeven Price	USD/bbl	38.56	28.80	24.23	**27.12**	**28.13**	27.61	27.40	27.39

172. The average minimum WCS cash breakeven prices set forth in the above table represent the ***minimum*** average WCS benchmark spot price that would be required in any given quarter in order for the Canadian Bitumen Operations to avoid losing money (*i.e.*, in order to cover the minimum average total production costs and royalties paid in connection with the production of bitumen from the Canadian Bitumen Operations). *Id.*, ¶51.

173. As demonstrated by the following figure, the daily spot price of WCS crude fell below the Canadian Bitumen Operations' average minimum WCS cash breakeven price for the majority of the time from mid-November 2015 through mid-April of 2016. *Id.*, ¶52. Indeed, during the period of November 12, 2015 through April 18, 2016, the WCS daily spot price fell below the Canadian Bitumen Operations' average minimum WCS cash breakeven price on ***all but eight days***. *Id.*, ¶53. Accordingly, for at least this five-month period, the Canadian Bitumen Operations were not able to cover the combined costs associated with their production and royalties owed to the Alberta government – let along recoup any of the massive capitalized costs Exxon had already sunk into the project.[25] *Id.*, ¶¶51-54.

[25] For example, as discussed at ¶104, *supra*, *The Wall Street Journal* disclosed that Exxon invested ***more than $20 billion*** to develop the Kearl Operation. Indeed, in 2015, full cost WCS breakeven prices, as explained in ¶160, *supra*, for bitumen mining projects were thought to be as high as $71/bbl.

WCS DAILY SPOT PRICE VERSUS CANADIAN BITUMEN OPERATIONS' WCS CASH BREAKEVEN PRICE



174. As the figure above illustrates, by at least year-end 2015, the Canadian Bitumen Operations were operating at a significant loss – and this material negative trend was even more prolonged and significant by the time Defendants filed the Company's 2015 Form 10-K on February 24, 2016. Yet, as detailed *infra*, Defendants concealed this fact when they filed Exxon's 2015 Form 10-K, instead reporting only that the Canadian Bitumen Operations had generated an ***average profit*** of $5/bbl over the course of 2015, and thereby misleading investors. *See* ¶16, 343, *infra*.

175. Moreover, in addition to operating at a loss, the Kearl Operation was also teetering on the brink of no longer satisfying the SEC's definition for proved reserves at year-end 2015 – and, in fact, likely would ***not*** have satisfied the definition at year-end if Defendants had properly included a GHG proxy cost, consistent with their public representations and their obligations under GAAP and SEC accounting and disclosure rules. *See* Wright Decl., ¶¶58-69, 73-81, §§IV.E., V.B.

176. Specifically, as detailed by the analysis set forth in the Wright Declaration, at year-end 2015, the average WCS benchmark spot price was, ***at most***, $1.52/bbl away from triggering a de-

booking of the entire amount of the Kearl Operation's purportedly proved reserves – ***without*** the inclusion of ***any*** GHG proxy costs. Wright Decl., ¶¶58-67, 77-81.[26] Specifically, based on an analysis of the "standardized measure of discounted future net cash flows related to proved oil and gas reserves" schedule reported in Imperial's 2015 Form 10-K, filed with the SEC on February 24, 2016, Defendants knew, at year-end 2015, that the Kearl Operation would no longer satisfy the SEC's definition for proved reserves at year-end 2016, if the average WCS spot price dropped by $1.52/bbl or more. *Id*., ¶¶58-67. Thus, based on the average WCS price for 2015, as reported by *Bloomberg* ($37.12/bbl), Defendants knew that the Kearl Operation would no longer satisfy the SEC's definition for proved reserves at year-end 2016 unless the average WCS spot price for the year was ***at least*** $35.61/bbl. *Id*.

177. As a result, by no later than the beginning of February 2016, it was apparent to Defendants that the Kearl Operation bitumen reserves would no longer satisfy the SEC definition for proved reserves at year-end 2016, even ***without*** the inclusion of Exxon's stated GHG proxy costs, absent an extraordinary – and, by Exxon's own estimates, unexpected – rise in the price of oil. Wright Decl., ¶¶68-69. Moreover, this fact would have only become more and more apparent to Defendants as the year progressed, as detailed by the following table:

[26] Given the small de-booking "buffer" of $1.52/bbl at year-end 2015 and the material costs that would have been associated with the application of Exxon's stated GHG proxy costs to the Kearl Operation (as much as $5.70/bbl, as discussed at ¶360, *infra*), if Defendants had properly applied a GHG proxy cost to their proved reserve calculations for the Kearl Operation at year-end 2015 – as they were required to do by GAAP and SEC accounting and disclosure rules (*see* §V.B., *infra*; Wright Decl., ¶¶73-81) – it is highly likely that the extra costs would have precluded the Kearl Operation's reserves from satisfying the SEC's definition for proved reserves at year-end 2015. *See* Wright Decl., ¶¶77-81.

Minimum Average WCS Price Required to Avoid De-Booking

Month	WCS Daily Spot Price in Effect on First Day of Month (USD/bbl)	Year-to-Date Average WCS Price (USD/bbl)	Minimum Average WCS Price Needed Over Remainder of Year to Avoid De-Booking (USD/bbl)
January 2016	$23.79	$23.59	**$36.68**
February 2016	$15.87	$19.83	**$38.77**
March 2016	$22.00	$20.55	**$40.63**
April 2016	$23.54	$21.30	**$42.77**
May 2016	$32.57	$23.55	**$44.22**
June 2016	$37.16	$25.82	**$45.40**
July 2016	$35.19	$27.16	**$47.44**
August 2016	$25.31	$26.93	**$52.97**
September 2016	$29.11	$27.17	**$60.93**
October 2016	$34.24	$27.88	**$74.27**
November 2016	$32.27	$28.28	**$116.27**
December 2016	$35.56	$28.88	n/a

178. As demonstrated by the above table, by the time Exxon filed its 2015 Form 10-K, the year-to-date average WCS spot price was only $19.83/bbl, far below the price Defendants knew they needed in order to avoid de-booking Kearl at year-end 2016. Wright Decl., ¶70. In order to make up the difference, Exxon needed the WCS average spot price to rise to $38.77/bbl for the remainder of 2016, a price that was almost ***twice*** as high as the year-to-date average at that point. *See* Wright Decl., ¶70.

179. Defendants also knew that a ***doubling*** in the average WCS spot price was highly unlikely. In fact, a year-end 2015 reserve report filed by Imperial with the Canadian Securities Administrators on February 24, 2016 forecasted the average annual WCS benchmark price for 2016 of only $33.91/bbl – far more optimistic than the average year-to-date WCS spot price of $19.83/bbl, but still well short of the average $38.77/bbl WCS spot price needed for the remainder of 2016 to avoid de-booking all the Kearl Operation's proved reserves. *Id.*, ¶¶69-70.

180. As each month in 2016 progressed, the likelihood of de-booking Kearl's proved reserves became more and more a certainty, but Defendants continued to conceal this fact from investors. Indeed, by the time Exxon warned investors on October 28, 2016 that a de-booking would be required "[i]f the average prices seen during the first nine months of 2016 persist for the remainder of the year," it was already a virtual certainty. Specifically, as depicted by the table in ¶177 above, when Exxon made its October 28, 2016 disclosure, Defendants knew that they could only avoid de-booking Kearl's proved reserves if oil prices nearly ***tripled*** in the final two months of the year – a virtual impossibility that was neither probable nor expected. Wright Decl., ¶71.

181. Moreover, Exxon's confidence in its ability to economically produce the proved reserves at its Kearl Operation, under the economic conditions existing at year-end 2015, is also belied by actions the Company took in the first half of 2015 – actions that were at odds with any true belief that the Kearl Operation was profitable at current or anticipated future oil price levels. For example, since the Kearl Operation opened in 2013, Exxon and Imperial had been continually trumpeting their plans to complete a third and fourth expansion phase in order to increase future production. However, when low oil prices continued to persist into early 2015, those plans were quietly shelved indefinitely, without any public explanation or a new target date for the expansion.[27]

182. Additionally, Exxon's management knew that capital expenditures to continue developing its proved reserves in the Canadian oil sands made little economic sense, and at year-end 2015 Exxon accordingly slashed its planned development costs. For instance, Imperial's 2014 and 2015 forecasts for future capital expenditures to develop proved reserves paint drastically different pictures.[28] During 2015, management aggressively cut future reserve development spending. As

[27] S. Haggett, *Imperial delays target for next Kearl oil sand expansion*, Reuters, June 17, 2015.

[28] *See* 2014 and 2015 annual Forms 51-101F1, *Statement of Reserves Data and Other Oil and Gas Information*, Item 5.3 Future development costs, filed with the Canadian Securities Administrators on February 25, 2015 and February 24, 2016, respectively.

demonstrated below, expenditures were cut in 2016, 2017 and 2019 by a whopping 35%, 36% and 43%, respectively:

Imperial Oil Limited
Change in Forecasted Future reserve Development Costs:
December 2014:2015
Total forecasted future development costs to develop disclosed, proved reserves
(in billions of dollars (CAD))

Future year	Forecast at December 31, 2014	Forecast at December 31, 2015	% reduction 2014/2015
2014	-	-	
2015	2.7	-	
2016	1.7	1.1	**-35%**
2017	1.4	0.9	**-36%**
2018	1.3	1.3	**0%**
2019	1.4	0.8	**-43%**
2020	-	1.1	
Remaining years	38.5	37.9	**-2%**
Total	$47.0	$43.1	**-8%**

Data Source: 12/31/2014, 2015 Imperial Oil Ltd. *Statement of Reserves Data and Other Oil and Gas Information*, filed on Canadian Securities Agency Form 51-101F1

183. But even these drastic cuts were not enough to stem Exxon's losses. After already reducing 2016 capital spending by 35%, Imperial cut an ***additional 50%*** from its actual 2016 development costs – spending a mere $543 million (CAD) on reserve development costs instead of the $1.1 billion planned.

184. Despite Defendants' knowledge that Exxon's Canadian Bitumen Operations were operating at a loss and the Company's desperate need for deep and consequential cuts to its reserve development costs, Defendants nonetheless failed to disclose the near certainty that all of the Kearl Operation's proved reserves – which, at the start of 2016, represented nearly 14% of the Company's total proved reserves – would need to be de-booked at year-end.

2. The Rocky Mountain Dry Gas Operations

185. As detailed by the Wright Declaration, numerous red flags, including persistently low gas prices and Exxon's failure to incorporate the GHG "proxy cost" into its asset impairment tests prior to 2016, indicate that a significant portion of the Company's Rocky Mountain dry gas operations were impaired at year-end 2015. Wright Decl., ¶¶87-104. As described in ¶55, *supra*,

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Exxon capitalizes much of the large up-front costs of acquiring and developing oil and gas assets, such as its Rocky Mountain dry gas operations. However, when the future net cash flows are no longer expected to exceed the capitalized costs over the life of the project, the asset becomes "impaired" and Exxon must write it down. *See* §IV.A.3. Because low gas prices and other significant factors at year-end 2015 indicated that the future net cash flows associated with the Rocky Mountain dry gas operations were no longer expected to exceed the capitalized costs over the life of the assets, Exxon was required to take an asset impairment. Wright Decl., ¶¶87-104.

186. Nevertheless, Exxon defiantly refused to write down its assets in 2015, declaring instead: "***We don't do write-downs***." In order to escape a write-down, Exxon downplayed significant adverse changes in the business climate – changes that required the Company to test for impairment – stating that Exxon "[did] not view temporarily low prices or margins as a trigger event for conducting impairment tests." However, Exxon's defiance did not change the reality that the prolonged price slump was indeed a trigger event, requiring the Company to test its Rocky Mountain dry gas operations for impairment at year-end 2015. Wright Decl., ¶¶88-95.

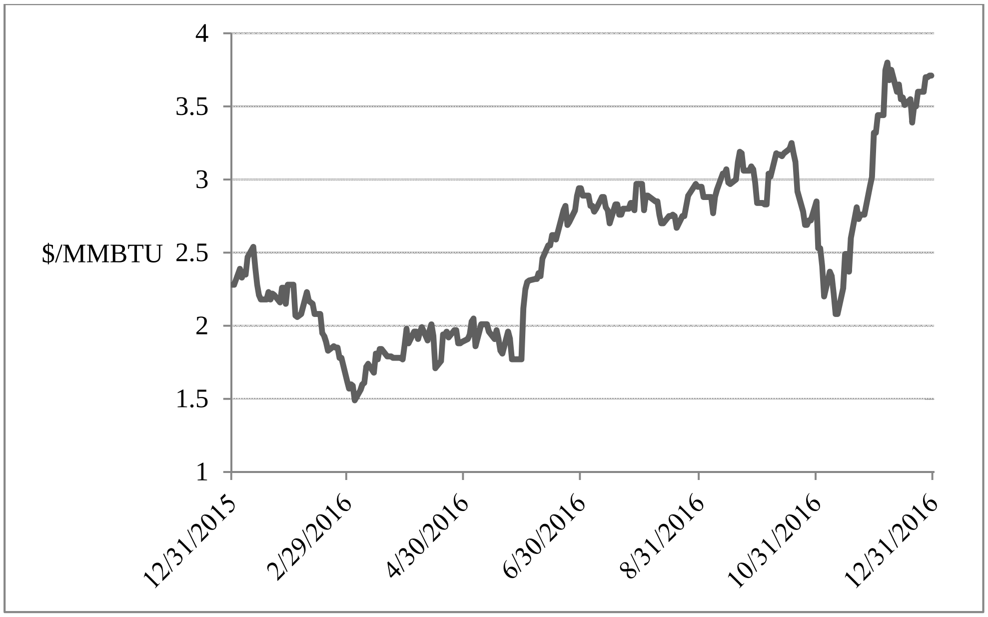
187. Write-downs by Exxon's peers further confirm that the persistent, severely low gas prices were an impairment "trigger event." *Id.*, ¶¶92-94. Specifically, as a result of the extremely low gas price environment throughout 2014 and 2015, many other companies operating in the Rocky Mountain dry gas regions recorded significant impairment charges for their gas operations in 2014 and 2015. *See id.*, ¶93; *see also* ¶163, *supra*. Indeed, it was reported that the entire Rocky Mountain dry gas region was under stress in 2015, primarily due to "***low commodity prices***." *See* ¶164, *supra*.

188. Other red flags indicating an impairment trigger event occurred during this time-frame as well. Wright Decl., ¶¶96-104. However, Exxon needed to avoid a write-down in order to preserve the Company's façade that it "***[doesn't] do write-downs***," and to avoid additional scrutiny from the rating agencies at a time when it needed its AAA rating to raise additional financing for its operations

and to fund its dividends. *See* ¶15, *supra*. As reported by *The Wall Street Journal*: "Exxon's ability to avoid write-downs – and potential charges to earnings that come with them – has been among the factors helping the company outperform rivals" since prices began falling in mid-2014. Only after feeling pressure from the SEC and the NYOAG's investigation did Defendants finally take action, belatedly recording the $2 billion post-tax ($3.3 billion pre-tax) 2016 dry gas impairment charge in the Company's 2016 year-end financial statements.

189. But Exxon's year-end 2016 impairment was long overdue. Additional facts show that Exxon's write-down was required at least a year earlier, ***when conditions were actually much worse***. For example, production costs for Exxon and other operators in the Rocky Mountain dry gas region were generally ***higher*** in 2015 than 2016. Wright Decl., ¶98. In addition, Henry Hub natural gas spot prices were ***much higher*** at year-end 2016 (when Exxon was finally forced to take the 2016 dry gas impairment charge) than they were a year earlier at year-end 2015. *Id*., ¶96. Specifically, as detailed by the figure below, midway through 2016, the Henry Hub natural gas price finally began to rebound, and continued to rise throughout the second half of 2016, ultimately reaching $3.71/per million BTU by December 30, 2016 – ***a 62% improvement over the price a year earlier at year-end 2015***:

Henry Hub Natural Gas Spot Price (2016)



190. With prices improving by approximately 62% in 2016, and production costs generally improving during the same time period, Exxon's Rocky Mountain dry gas operations were clearly better off, and certainly no worse off, at year-end 2016 (when Exxon was finally forced to take the 2016 dry gas impairment charge) than they were at year-end 2015 (when Exxon recorded no impairment charge, unlike the vast majority of the Company's peers). As such, if Exxon's Rocky Mountain dry gas operations were impaired at year-end 2016, such assets ***must have*** been similarly impaired at year-end 2015. *See* Wright Decl., ¶¶96-104.

191. This conclusion is further bolstered by the NYOAG Evidence that, prior to 2016, "Exxon failed to apply a proxy cost of GHGs in determining whether its long-lived assets, such as oil and gas reserves and resources, were impaired, rendering its representations false and misleading." Oleske Affirmation, ¶41; Wright Decl., ¶¶105-107; *see also* ¶¶142-145 *supra*. Indeed, according to the sworn testimony in the Oleske Affirmation, Exxon made "no attempt at all . . . to incorporate a proxy cost of GHGs into the economic models of cash flows used in determining whether a trigger for

impairment testing existed or whether Exxon's assets were actually impaired prior to 2016." Oleske Affirmation, ¶49.

192. Exxon repeatedly represented to investors that it incorporated GHG "proxy costs" into its investment and planning decisions. *See* ¶129, *supra*. As such, Exxon was required to include the GHG "proxy costs" used for its internal business planning purposes in connection with the Company's asset impairment calculations for the its Rocky Mountain dry gas operations. Wright Decl., ¶106. Exxon's internal policies in place during 2015 would have required the Company to apply a $10 per ton proxy cost for emissions from its Rocky Mountain dry gas operations starting in 2018, which would "ris[e] linearly" to $60 per ton in 2030. Oleske Affirmation, Ex. 5; Wright Decl., ¶106.

193. Had Exxon properly incorporated the proxy costs described in ¶192, *supra*, into the asset impairment calculations for its Rocky Mountain dry gas operations prior to 2016, the impact would have been significant. Indeed, using standard conversion rates, a proxy cost of $10/ton would have added additional costs of approximately $0.53 per million BTU, while a proxy cost of $60/ton would have resulted in additional costs of approximately $3.19 per million BTU. Wright Decl., ¶¶106-107.

194. Considering that the benchmark Henry Hub spot price for natural gas was only $2.28 per million BTU at December 31, 2015, an additional cost of $0.53 would have been significant, and an additional cost of $3.19 would have been untenable. Not surprisingly, once Exxon began including GHG proxy costs in its asset impairment analyses in 2016, it announced that its Rocky Mountain dry gas operations were indeed impaired.

H. Exxon Could Not Risk Disclosing the Truth About Its Troubled Assets and Misleading Investment and Valuation Processes in Advance of the Company's $12 Billion Public Debt Offering in March 2016

195. As detailed *supra*, certain of Exxon's specific reserve assets were facing significant trouble at year-end 2015. Moreover, as S&P would later report in April 2016, Exxon's "debt level [had] ***more than doubled*** in recent years, reflecting high capital spending on major projects in a high commodity price environment and dividends and share repurchases that ***substantially exceed[ed] internally generated cash flow***."

196. Indeed, according to information from the Company's 2015 Form 10-K, Exxon reported a total operating cash flow of $30.3 billion and total capital expenditures of $26.5 billion in 2015, resulting in a "free cash flow" of $3.8 billion. According to *Barron's*: "One of the most crucial foundations of a company's dividend is its free cash flow. The CFA Institute defines this as cash 'available to the company's investors after making all investments necessary to maintain the company as an ongoing enterprise.'"[29] Yet, Exxon's 2015 Form 10-K reveals that Exxon paid ***more than $16 billion*** to shareholders in 2015 – $12.26 billion of which was paid in the form of shareholder dividends and $4 billion of which was paid through stock buybacks. As such, Exxon paid shareholders ***more than $12 billion in payouts over and above*** its free cash position in 2015.

197. Moreover, the start of 2016 did not bring better news. Instead, through the first two months of 2016, oil and gas prices continued to plummet, reaching their lowest points in years. For example, on February 2, 2016, the WCS benchmark daily spot price, as reported by *Bloomberg*, was $14.38/bbl, down from $23.79/bbl on December 31, 2015 and $87.23/bbl on June 12, 2014.

198. As a result of the Company's declining profits, increasing debt and unsustainable commitment to shareholder payouts, Exxon found itself in dire need of an infusion of capital at the

[29] L. Strauss, *The Key to Bigger Payouts: More Free Cash Flow*, Barron's, Oct. 8, 2016.

start of 2016. As such, the Company's eight-tranche $12 billion public debt offering (the "March 2016 Debt Offering") – which was scheduled for March 2, 2016, and constituted the largest single debt offering in Exxon's history – was critically important to Exxon's ability to fund its ongoing operations and shareholder payout commitments.

199. As with any debt offering, the effectiveness of the March 2016 Debt Offering was largely dependent upon Exxon's credit rating at the time of the offering. As noted *supra*, prior to 2016 Exxon had repeatedly boasted about the AAA rating that it held for more than 60 years. Among other things, Exxon frequently touted the benefits the Company's AAA rating offered it in terms of debt financing, specifically noting Exxon's "[u]nmatched access to capital on the most attractive terms."

200. However, based on Exxon's dire financial situation at the start of 2016, as detailed above, the Company knew it was perilously close to losing its coveted AAA rating in advance of the March 2016 Debt Offering. Indeed, on February 2, 2016, S&P placed Exxon's long-term corporate credit rating on "CreditWatch" with "negative" implications. In addition, on February 25, 2016, Moody's also dropped Exxon's outlook from "stable" to "negative." Among other things, Moody's stated: "'The negative outlook reflects our expectations of negative free cash flow and weak cash flow based on leverage metrics.'" At the same time, Moody's also expressed concerns over Exxon's "'reserve replacement and production profile in the latter part of this decade.'" As such, Defendants knew that any disclosure of negative news concerning the value or profitability of Exxon's reserve assets would place the Company's tenuous AAA rating in jeopardy.[30]

201. Moreover, Exxon knew that any negative change in its credit rating would have a significantly negative impact on the March 2016 Debt Offering – most notably, an appreciable

[30] Indeed, the tenuous nature of Exxon's AAA credit rating is demonstrated by the fact, as noted *supra*, that shortly after the March 2016 Debt Offering, S&P did strip Exxon of its prized AAA rating, downgrading the Company to AA+ on April 26, 2016.

increase in Exxon's financing costs. As such, Exxon knew it could not risk disclosing any of the true facts concerning the Company's struggling Canadian Bitumen Operations, its impaired Rocky Mountain dry gas operations or Exxon's failure to properly incorporate a "proxy cost" of carbon into the Company's investment and asset valuation processes. *See* §§IV.E., IV.G., *supra*; *see also* ¶247, *infra* (defining term "Alleged Omitted Information" to include the misrepresented facts described in §§IV.E., IV.G., *supra*).

1. Any Disclosure About Exxon's Troubled Reserve Assets and Misleading Investment and Valuation Processes Would Have Put Exxon's AAA Credit Rating in Significant Jeopardy

202. It is well established that asset values and their associated ratios play a very significant role in assessing the credit characteristics of a company. The 9th edition of *Investments*, published in 2011 by McGraw-Hill Irwin, describes the importance of financial ratios to ratings agencies when determining a company's credit quality:

> Bond rating agencies base their quality ratings largely on an analysis of the level and trend of some of the issuer's financial ratios. The key ratios used to evaluate safety are:
>
> 1. ***Coverage ratios*** – Ratios of company earnings to fixed costs. . . .
>
> 2. ***Leverage ratios, Debt-to-equity ratio*** – A too-high leverage ratio indicates excessive indebtedness, signaling the possibility that the firm will be unable to earn enough to satisfy the obligations on its bonds.
>
> 3. ***Liquidity ratios*** – The two most common liquidity ratios are the ***current ratio*** (current assets/current liabilities) and the ***quick ratio*** (current assets excluding inventories/current liabilities). . . .
>
> 4. ***Profitability ratios*** – Measures the rate of return on assets or equity. Profitability ratios are indicators of the firm's overall financial health. The *return on assets* (earnings before interest and taxes divided by total assets) or the *return on equity* (net income/equity) are the most popular of these measures. Firms with higher returns on assets or equity should be better able to raise money in security markets because they offer prospects for better returns on the firm's investments.
>
> 5. ***Cash flow-to-debt ratio*** – This is the ratio of total cash flow to outstanding debt.

Z. Bodie, A. Kane & A. Marcus, *Investments*, at 463 (9th ed. McGraw-Hill Irwin 2011).

203. S&P's rating criteria also specifically recognizes the importance of reserves de-booking when evaluating oil and gas companies. Under this criteria, S&P performs a financial risk analysis "[t]o assess the reliability of reserve disclosures, [and] evaluate whether a company has historically posted substantial or frequent negative performance reserve revisions, which can indicate an aggressive policy of reserve bookings. In this instance, we may hold these companies to a higher standard for reserve size and quality (based on a higher proportion of proved developed reserves) relative to similarly rated peers."[31]

204. S&P's ratings methodology also recognizes the importance of reserves to the financial health and prospects of oil and gas companies. In fact, S&P notes that reserves are "critical" in their assessment of a company's scale, scope, and diversity, stating:

> ***Hydrocarbon reserves are the key asset of an E&P company and their characteristics are a critical aspect of our assessment of its scale***, scope, and diversity. We assess the characteristics of the reserves, including:
>
> The size of the reserves (larger reservoirs leads to economies of scale);
>
> The makeup in terms of liquids (such as crude oil and natural gas liquids) rather than natural gas;
>
> The operational risk inherent in the exploitation of the reserves (for example, deep water production being much riskier than onshore operations);
>
> The geographic diversity of production sources; and
>
> The company's current production and future growth prospects.[32]

205. Based on the foregoing basic principles concerning credit ratings – and specifically the application of such principles to the oil and gas industry – it is clear that disclosure of any of the Alleged Omitted Information prior to the March 2016 Debt Offering would have clearly placed Exxon's already tenuous AAA rating in significant jeopardy of being downgraded.

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[31] *Criteria | Corporates | Industrials: Key Credit Factors For The Oil And Gas Exploration And Production Industry*, S&P Global Ratings, ¶69, Dec. 12, 2013 (last visited Mar. 20, 2017).

[32] *Id.*, ¶42.

2. A Downgrade in Exxon's Credit Rating Would Have Exposed the Company to Significantly Increased Borrowing Costs in Connection with the March 2016 Debt Offering

206. Had Exxon executed the March 2016 Debt Offering with the AA+ credit rating the Company was ultimately downgraded to in April 2016, Exxon's borrowing costs associated with the offering would have increased significantly due to increased credit risk that would have been attached to Exxon.

207. According to *The Handbook of Fixed Income Securities*, a widely used academic authority on fixed income securities, when practitioners in finance and economics refer to the "credit risk" of a bond, they are referring to the following two forms of risk:

> 1. The risk that the issuer will default on its obligation (default risk).
>
> 2. The risk that the bond's value will decline and/or the bond's price performance will be worse than that of other bonds against which the investor is compared because either (a) the market requires a higher spread due to a perceived increase in the risk that the issuer will default or (b) companies that assign ratings to bonds will lower a bond's rating.[33]

208. Credit risk, especially that reflected in the credit ratings provided by agencies like S&P, would have been a material consideration for Exxon's bond investors. As highlighted in the *The Handbook for Fixed Income Securities*:

> Any bond investment carries with it the uncertainty as to whether the issuer will make timely payments of interest and principal as prescribed by the bond's indenture. This risk is termed ***credit default risk*** and is the risk that a bond issuer will be unable to meet its financial obligations. Institutional investors have developed tools for analyzing information about both issuers and bond issues that assist them in accessing credit default risk. These techniques are discussed in later chapters. However, most individual bond investors and some institutional bond investors do not perform any elaborate credit analysis. Instead, they rely largely on bond ratings published by the major rating agencies that perform the credit analysis and publish their conclusions in the form of ratings. The three major nationally recognized statistical rating organizations (NRSROs) in the United States are Fitch Ratings, Moody's, and Standard & Poor's. These ratings are used by market participants as a

[33] F. Fabozzi, *The Handbook of Fixed Income Securities*, at 24 (7th ed. McGraw Hill 2012).

> factor in the valuation of securities on account of their independent and unbiased nature.[34]

209. A change in credit rating would have impacted the value of Exxon's debt securities. This concept is affirmed in *The Journal of Finance*, which highlights that credit rating changes can have a direct impact on a firm's cost of capital and that rating changes can trigger changes in bond coupon rates:

> Ratings changes can also trigger events that result in discrete costs (benefits) for the firm, such as a change in bond coupon rate, a loss of a contract, a required repurchase of bonds, or a loss of access to the commercial paper market.[35]

210. Furthermore, Exxon's credit rating provided investors with important information about the firm's overall financial health. As explained in the *The Journal of Finance*:

> If ratings contain information, they will signal overall firm quality and firms would be pooled with other firms in the same rating category. In the extreme, all firms within the same ratings group would be assessed similar default probabilities and associated yield spreads for their bonds. Thus, even though a firm may be a particularly good BB-, for example, its credit spreads would not be lower than credit spreads of other BB- firms. Firms near a downgrade in rating will then have an incentive to maintain the higher rating. Otherwise, if they are given the lower rating (even though they are only a marginally worse credit), they will be pooled into the group of all firms in that lower credit class. Likewise, firms near an upgrade will have an incentive to obtain that upgrade to be pooled with firms in the higher ratings category. Arguably, any ratings category should contain information, so unlike with regulations, a potential change in rating of any kind, including from BB to BB- for example, should be significant for capital structure decisions.[36]

211. Specifically, the credit rating of bonds issued by Exxon imposes direct costs to the firm such that the firm's operations, access to the financial markets, disclosure requirements, covenant terms, counterparty relationships, and general relationships with employees and customers

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[34] *Id*. at 327.

[35] D. Kisgen, *Credit Ratings and Capital Structure*, Journal of Finance, Vol. LXI, No. 3, at 1036 (June 2006).

[36] *Id*. at 1039.

are all influenced by the credit rating and therefore sensitive to change concurrently with changes in credit rating. As explained in *The Journal of Finance*:

> Different bond rating levels impose direct costs on the firm. A firm's rating affects operations of the firm, access to other financial markets such as commercial paper, disclosure requirements for bonds (e.g., speculative-grade bonds have more stringent disclosure requirements), and bond covenants, which can contain ratings triggers whereby a ratings change can result in changes in coupon rates or a forced repurchase of the bonds.
>
> Ratings can affect business operations of the firm in several ways. Firms entering into long-term supply contracts may require specific credit ratings from their counterparty, firms entering into swap arrangements or asset-backed securities transactions may require a particular rating (e.g., A- or above), and mergers can be conditional on ratings. Further, lower ratings levels may negatively affect employee or customer relationships.[37]

212. Empirical evidence also supports this concept. As described in *The Journal of Financial Research*:

> Spreads on bonds are sensitive to credit quality, with gross spreads more than 200 basis points higher on noninvestment-grade issues.[38]

213. Indeed, research suggests that Exxon's credit ratings would have had a direct impact on its debt offerings. Findings in the *Journal of Financial Economics* explicitly acknowledge the relationship between credit rating changes and their effect on new bond issues:[39]

> An alternative view is that rating agencies are information specialists who obtain information that is not in the public domain, i.e., information acquisition is costly and rating agencies are the lowest cost providers of some information. Consequently, rating changes affect security prices and assigned ratings affect the yields on new issues.

214. In accordance with the generally accepted financial principles detailed above, had Exxon's credit rating been lowered to a AA+ prior to the March 2016 Debt Offering, Exxon would

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[37] *Id*. at 1039-40.

[38] I. Lee, S. Lochhead & J. Ritter, *The Costs of Raising Capital*, J. of Fin. Research, Vol. 29, No. 1, at 73 (Spring 1996).

[39] R. Holthausen, R. Leftwich, *The Effect of Bond Rating Change on Common Stock Price*, J. of Fin. Economics, Vol. 17, at 61 (1986).

have incurred substantial additional monetary costs in connection with the offering – which, as detailed above, the Company desperately needed in order to infuse additional capital, given its declining profits, increasing debt and unsustainable commitment to shareholder payouts.

I. Exxon Faces Increasing Scrutiny from the SEC and State Attorneys General Over Reporting of Its Reserve Asset Values

215. In November 2015, New York Attorney General Eric T. Schneiderman ("NY AG Schneiderman") subpoenaed Exxon seeking documents and information concerning, *inter alia*, Exxon's investment and valuation processes regarding its oil and gas reserves. Specifically, the NY AG focused on Exxon's failure to record any meaningful asset impairment or write-down in response to the industry's prolonged price downturn, as detailed in ¶188, *supra*.

216. On November 9, 2015, *The Guardian* revealed that the focus of the NYOAG's investigation into Exxon encompassed claims that the Company lied to investors about "the dangers and potential business risks" that Exxon faced due to climate change. Sources cited in the report confirmed that "the investigation will focus on any inconsistencies between the company's knowledge of climate change . . . and its filings to the Securities Exchange Commission and other government regulatory agencies."

217. Investors responded negatively to the news reported by *The Guardian* on November 9, 2015, causing Exxon's stock price to fall $2.52 per share, or 2.98%.

218. On January 20, 2016, the *Los Angeles Times* reported that California Attorney General Kamala Harris was investigating whether Exxon repeatedly lied to the public and investors about the risks to its business from climate change, specifically whether Exxon's actions "could amount to securities fraud and violations of environmental laws." A source close to the investigation said that Attorney General Harris was reviewing "what Exxon Mobil knew" versus "what the company told investors."

219. Investors again responded negatively to this news, causing Exxon's stock price to fall $3.22 per share, or 4.21%.

220. In March 2016, NY AG Schneiderman and the attorneys general of 17 other states and territories, including Massachusetts Attorney General Maura Healey ("MA AG Healey") and California Attorney General Harris, announced that they had formed a formal coalition to pursue climate change litigation against big energy companies, including Exxon (the "State AG Climate Change Coalition").

221. On June 15, 2016, Exxon filed an action for declaratory relief in this Court styled *Exxon Mobil Corp. v. Healey*, No. 4:16-cv-00469-K (N.D. Tex. June 15, 2016) (the "Healey Complaint"). In its complaint, Exxon sought an injunction "barring enforcement" of a civil investigative demand served on Exxon by MA AG Healey. Healey Complaint, ¶14. In an Order dated March 29, 2017, this Court transferred the Healey case to the Southern District of New York.

222. On August 19, 2016, *The New York Times* published a report detailing an "extensive interview" during which NY AG Schneiderman reportedly told *The New York Times* that his investigation and the investigations by the other state attorneys general were not focused just on what Exxon had done in the past, but on the fact that Exxon was then currently potentially defrauding its investors by overstating the value of its reserves on its books. *The New York Times* quoted him as pointing out that Exxon had expressly represented in 2014 "that global efforts to address climate change would not mean that it had to leave enormous amounts of oil reserves in the ground as so-called 'stranded assets,'" when in fact "many scientists ha[d] suggested that if the world were to burn even just a portion of the oil in the ground that the industry declares on its books, the planet would heat up to such dangerous levels that 'there's no one left to burn the rest.'" *The New York Times* went on to emphasize that, "[b]y that logic, Exxon Mobil [would] have to leave much of its oil in the ground, which means the company's valuation of its reserves is off by a significant amount," and

quoted NY AG Schneiderman as explicitly stating that if Exxon's own internal research showed that Exxon knew better, "'there may be massive securities fraud here.'"

223. Also on August 19, 2016, NY AG Schneiderman issued a subpoena to Exxon's outside auditor, PwC. The PwC subpoena seeks documents related to PwC's audit of Exxon, among other topics. PwC has served as Exxon's outside auditor since at least January 1, 2010. Concomitantly, according to public reports, PwC served from at least 2008 through 2013 as a global advisor and report writer for the CDP, a non-profit organization that functions as a global disclosure system for environmental information, including GHG emissions data and other climate change-related information, from companies including Exxon.

224. On September 16, 2016, *The Wall Street Journal* published an exposé further confirming that NY AG Schneiderman was investigating Exxon for potentially defrauding investors. Noting that Exxon had "for years . . . kept the value of its huge oil and gas reserves steady in the face of slumping energy prices while rivals since 2014 have slashed $200 billion off their combined holdings," *The Wall Street Journal* emphasized that NY AG Schneiderman was "examining accounting practices at the nation's largest energy company," citing "people familiar with the matter." According to *The Wall Street Journal*, NY AG Schneiderman's office was "adding scrutiny of [Exxon's] reserve values to its probe into Exxon's past knowledge of the impact of climate change and how it could affect its future business." *The Wall Street Journal* also reported that Exxon had "declined to comment on the New York investigation, and wouldn't disclose specifics of how it evaluates assets apart from what it has said in company filings," yet noting that a "spokesman said Exxon follow[ed] all financial rules and regulations."

225. Later on September 16, 2016, *The Wall Street Journal* published a second exposé, entitled "New York AG Employs Powerful Law in Exxon Probe," which pointed out that "New York's 1921 Martin Act grants prosecutors wide jurisdiction in securities investigations." The second

Wall Street Journal exposé further emphasized that NY AG Schneiderman "ha[d] been knee deep in Exxon's internal forecasting for more than a year, using a powerful New York state fraud law to investigate the company's knowledge of the impact of climate change and how it could affect its future business."

226. On September 20, 2016, *The Wall Street Journal* reported that the SEC had been investigating Exxon's reserve accounting related to climate change and its failure to write down any of its oil and gas reserves in the face of the decline in global oil prices. According to the report, the "SEC sought information and documents in August from Exxon and the company's auditor, [PwC]," again citing undisclosed "people familiar with the matter." Those undisclosed people also reportedly told *The Wall Street Journal* that the SEC had "been receiving documents the company submitted as part of a continuing probe into similar issues begun last year by" NY AG Schneiderman. *The Wall Street Journal* also reported that the "SEC probe [was]n't believed to involve other energy companies," again citing an undisclosed "person familiar with the matter."

227. Putting additional color on precisely what the SEC was investigating that Exxon had been concealing from its investors, *The Wall Street Journal* quoted its undisclosed sources as stating that "[a] potential sticking point in the probe is what price Exxon uses to assess the 'price of carbon' – the cost of regulations such as a carbon tax or a cap-and-trade system to push down emissions – when evaluating certain future oil and gas prospects," adding that the "SEC [was] asking how Exxon's carbon price affects its balance sheet and the outlook for its future." According to *The Wall Street Journal*, "[w]hen such a theoretical price for carbon is low, more oil and gas wells would be commercially viable. Conversely, a high carbon price would make more of Exxon's assets look uneconomic to pull out of the ground in future years."

J. Exxon Partially Discloses Potential Reserve "De-Bookings"

228. On October 28, 2016, before the open of trading, Exxon issued a news release announcing its financial results for its third quarter ended September 30, 2016. In the release, Exxon disclosed that ***nearly 20%*** of the Company's proved oil and gas reserves might no longer satisfy the SEC's proved reserves definition at year-end, which would require such assets to be "de-booked" as proved reserves. Specifically, Exxon stated that "[i]f the average prices seen during the first nine months of 2016 ***persist*** for the remainder of the year, under the SEC definition of proved reserves, certain quantities of oil, such as those associated with the Kearl oil sands operations in Canada, will not qualify as proved reserves at year-end 2016." The release further clarified that the specific assets subject to the potential de-booking included "approximately 3.6 billion barrels of bitumen at Kearl, and about 1 billion oil-equivalent barrels in other North America operations."

229. Analysts and various media outlets commented on the significance of Exxon's October 28, 2016 disclosure regarding the potential de-booking of nearly 20% of the Company's entire proved reserves portfolio. For example, *The New York Times* stated on October 28, 2016, that while Exxon "has long insisted that it has been adequately accounting for the value of its oil and gas reserves – even as many other petroleum companies have taken big write-offs to reflect a two-year price slump," the potential ***de***-booking the Company now "face[s] could be the biggest accounting revision of reserves in its history." *The Wall Street Journal* also noted on October 28, 2016, that Exxon "warned that it may be forced to eliminate almost 20% of its future oil and gas prospects, yielding to the sharp decline in global energy prices," even though up until then "Exxon [had been] alone among major oil companies in not having written down the value of its future wells as prices fell."

230. Investors also took note of Exxon's October 28, 2016 disclosure, and responded strongly. Specifically, on October 28, 2016, Exxon's stock price declined $2.14 per share, or 2.46%,

and the Company's stock price fell an additional $1.46 per share, or 1.72%, on October 31, 2016. *See* ¶¶441-442, *infra*.

231. Unfortunately for investors, however, the October 28, 2016 disclosure revealed only a fraction of the truth regarding Defendants' fraud. Contrary to Exxon's warning that de-booking would be required "[i]f the average prices seen during the first nine months of 2016 ***persist*** for the remainder of the year," the truth was that de-booking was all but certain, ***even if prices increased significantly***. Indeed, as detailed in ¶180, *supra*, at the time Exxon issued its October 28, 2016 news release, the Company knew that the only way it could avoid de-booking the Kearl Operation reserves at year-end was if the average price of oil over the last two months of the year was approximately ***three times*** what it had been over the first ten months of the year – a virtual impossibility, by any reasonable measure.

K. Exxon Officially "De-Books" All of Its Proved Reserves from Kearl and Takes a $2 Billion Asset Impairment Charge Concerning Its Rocky Mountain Dry Gas Operations

232. On January 31, 2017, Exxon announced its 2016 fourth quarter and year-end financial results in an earnings press release. At that time, the Company announced that it would be taking a $2 billion asset impairment charge primarily related to "dry gas operations in the Rocky Mountains region" (the "2016 Dry Gas Impairment Charge"). Specifically, the release stated, in relevant part:

> **Upstream Asset Impairment Charge**
>
> As disclosed in the corporation's third quarter 2016 Form 10-Q filing, continued weakness in the upstream industry environment during 2016, continued weak financial results for several assets in North America, and a reduction in the mid-point of the ranges of the corporation's long-term oil and natural gas prices developed as part of its annual planning and budgeting cycle, led the corporation to conclude that the facts and circumstances supported performing an impairment assessment of certain long-lived assets, notably North America natural gas assets and certain other assets across the remainder of its Upstream operations. The assessment reflected long-term crude and natural gas prices which are consistent with the mid-point of the ranges that management uses to evaluate investment opportunities and which are in the range of long-term price forecasts published by third-party industry experts and government agencies. This assessment indicated that the vast majority of

> asset groups have future undiscounted cash flow estimates exceeding carrying values. ***However, the carrying values for certain asset groups in the United States exceeded the estimated cash flows. As a result, the corporation's fourth quarter 2016 results include an after-tax charge of $2 billion to reduce the carrying value of those assets to fair value. The asset groups subject to this impairment charge are primarily dry gas operations in the Rocky Mountains region of the United States with large undeveloped acreage positions*.**

233. Minimal additional details concerning the 2016 Dry Gas Impairment Charge were subsequently disclosed in the Company's 2016 Form 10-K, dated February 22, 2017, where the Company stated that the "asset impairment charge of $2,027 million mainly related to dry gas operations with undeveloped acreage in the Rocky Mountains region of the U.S." To date, Exxon has not disclosed additional details regarding the specific "dry gas operations with undeveloped acreage" at issue in the 2016 Dry Gas Impairment Charge. However, based on public statements by Exxon and its wholly-owned subsidiary, XTO, during the Class Period, Exxon's Rocky Mountain dry gas operations were generally located in basins throughout Colorado, New Mexico, Utah and Wyoming (the "Rocky Mountain Dry Gas Regions").

234. While Exxon's January 31, 2017 earnings news release was silent about the de-booking of Canadian bitumen reserves, during the Company's earnings conference call that same day, Jason Gammel, an analyst with Jefferies LLC, asked Defendant Woodbury whether Exxon still expected to de-book the Canadian oil sands proved reserves at issue in the Company's October 28, 2016 news release. In response, Defendant Woodbury signaled that such assets would be de-booked, officially stating that the Company would be "announcing [its] final year-end reserves . . . in the next couple of weeks," but that Exxon did "expect to reflect most of the SEC pricing impact . . . discussed in the third quarter."

235. Analysts and various media outlets commented on the significance of Exxon's January 31, 2017 disclosures. For example, the *Financial Times* reported on January 31, 2017 that Exxon's earnings per share were well below analysts' expectations. The *Financial Times* added that "Exxon's

earnings per share were 41 cents for the fourth quarter of 2016, with net income of $1.68bn, 40 per cent lower than expected. The average of analysts' forecasts was for earnings per share of 70 cents in the quarter. The lower than expected earnings came after a $2.03bn charge for a writedown in the value of some of ExxonMobil's assets, principally gasfields in the Rocky Mountain region of the US." Similarly, analysts at J.P. Morgan stated that Exxon's "earnings quality wasn't great" and "[n]o color was given" to help "resolve near-term concerns from investors [about] reserve revisions." Furthermore, J.P. Morgan analysts noted that "investors are likely still to be wary near-term around reserve revisions risk, with color expected in the next few weeks. We remain Neutral and tweak down our Dec. 2017 price target to $93/share from $94."

236. Investors also took note of Exxon's January 31, 2017 disclosure, and responded strongly. Specifically, over the two trading days following Exxon's January 31, 2017 disclosure, Exxon's stock price declined $1.92 per share, or 2.26%. *See* ¶452, *infra*.

237. On February 22, 2017, Exxon announced its 2016 year-end reserves in a press release that confirmed that the entire proved reserve base from the Kearl Operation would officially be de-booked. Specifically, the release stated:

> As a result of very low prices during 2016, certain quantities of liquids and natural gas no longer qualified as proved reserves under SEC guidelines.
>
> These amounts included the entire 3.5 billion barrels of bitumen at Kearl in Alberta, Canada. Another 800 million oil-equivalent barrels in North America did not qualify as proved reserves, mainly due to the acceleration of the projected economic end-of-field life. These revisions are not expected to affect the operation of the underlying projects or to alter the company's outlook for future production volumes.

238. Following the reserve de-bookings and asset impairments disclosed in early 2017, Exxon's credit rating has continued to decline. On May 24, 2017, S&P Global Ratings issued a negative outlook on Exxon as a result of its debt, citing "higher-than-previously expected leverage"

and indicating a "potential for a downgrade" without improvement. *S&P Issues Negative Outlook on ExxonMobil*, Barron's, May 24, 2017.

L. Developments from the NYOAG's Investigation Reveal Exxon's Efforts to Conceal Critical Information Concerning the Company's Fraud

239. Recent events related to the NYOAG's investigation of Exxon reveal troubling facts regarding Exxon's knowing concealment of critical evidence concerning communications involving the Company's high-level executives and Board members. In particular, Exxon's knowing failure to preserve, and its subsequent destruction of, evidence relevant to both the NYOAG investigation and this case raises serious concerns about the Company's conduct. As further detailed below, Exxon's deliberate actions have led to the destruction of critical evidence from Exxon's top executives, including Defendant Tillerson, concerning, among other things, climate change risk-management issues – subjects that are inextricably tied to the allegations herein – concerning Defendants' purported use of a GHG "carbon proxy" cost in connection with Exxon's reserve investment and valuation processes.

240. On March 13, 2017, the NYOAG submitted a letter (the "March 13, 2017 Letter") to the Honorable Barry Ostrager of the Supreme Court for New York County (the "New York Court"), revealing that Defendant Tillerson used an alias email account, Wayne.Tracker@ExxonMobil.com ("Wayne Tracker"), to discuss sensitive "risk-management issues related to climate change" and other matters relevant to Exxon's reserve asset valuation processes. Defendant Tillerson used the pseudonym Wayne Tracker account "from at least 2008 through 2015" to discuss these secretive matters with Exxon's senior management.

241. Among other things, the NYOAG's March 13, 2017 Letter revealed that "neither Exxon nor its counsel ***have ever disclosed*** that this separate email account was a vehicle for Mr. Tillerson's relevant communications at Exxon, and no documents appear to have been collected

from this email account, which also doe***s not appear on Exxon's list of preserved custodial sources*** for its privilege logs." In fact, the very existence of the Wayne Tracker emails was only revealed though an "***incidental production*** of approximately 60 documents" that were produced from other custodians' files.[40]

242. The March 13, 2017 Letter explained the importance of relevant documents related to Defendant Tillerson and other members of Exxon's management:

> Exxon's top executives, and in particular, Mr. Tillerson, have made multiple representations that are at the center of OAG's investigation of potentially false or misleading statements to investors and the public in regard to these purported internal safeguards. As the investigation has progressed, documents Exxon has produced from other custodians have confirmed the close involvement of these key management individuals in the company's development and implementation (or lack thereof) of its claimed risk-management policies.

(Footnote omitted.)

243. Subsequent developments in the NYOAG Subpoena Action have confirmed that Exxon's failure to disclose and preserve evidence from Defendant Tillerson's alias Wayne Tracker account was ***not an accident***. Specifically, on June 2, 2017, the NYOAG filed, among other things, the Oleske Affirmation and the attached Oleske Exhibits. Included in the Olseke Exhibits was deposition testimony from Exxon's outside counsel, which confirmed that Exxon's attorneys ***were aware*** of the Wayne Tracker emails in "***the first part of 2016***." Specifically, Exxon's outside counsel testified as follows:

> **Q:** Were you aware of that at the time?
>
> **A:** ***Yes, I was***. Because I knew about [the Wayne Tracker emails] and I read them and I said, well, ***this will be an interesting test of whether the Attorney General's office is reading the documents***, because there are documents from that e-mail account and they say Rex Tillerson on them.

Oleske Affirmation, Ex. 16 at 135-136.

[40] At a hearing held on June 18, 2017, Exxon's counsel represented that Exxon produced approximately three million pages of documents pursuant to the NYOAG's subpoena. None of these documents were collected from the Wayne Tracker account.

244. Yet, Exxon's outside counsel further testified that ***no attempt to preserve the Wayne Tracker emails was made***, despite counsel's ***admitted knowledge*** concerning the account's existence. Oleske Affirmation, Ex. 16 at 140-42. Exxon's outside counsel's testimony further confirmed that the failure to place the Wayne Tracker email account under a preservation hold resulted in a ***full year's worth*** of Wayne Tracker emails being destroyed. *Id*.

245. The sworn testimony in the Oleske Affirmation further revealed that Exxon's ***knowing failure*** to preserve relevant information and communications regarding the Company's reserve asset valuation processes – and the subsequent ***destruction*** of such evidence – was not just limited to the Wayne Tracker email account. In fact, such destruction extended to "***untold numbers of documents from over a dozen key custodians***," and included "at least a full year's worth of emails, attached documents and non-email documents." Oleske Affirmation, ¶¶55, 92.

V. DEFENDANTS' MATERIAL MISREPRESENTATIONS DURING THE CLASS PERIOD

A. Defendants' Misstatements and Omissions

246. Throughout the Class Period, Defendants made the statements set forth below (the "Alleged Misstatements") regarding, *inter alia*, the value and amount of Exxon's oil and gas reserves, and the Company's purported efforts to incorporate carbon or GHG proxy costs into its investment and valuation processes concerning such assets.

247. The Alleged Misstatements were each materially false and misleading at the time they were made, as a result of Defendants' failure to disclose, as specified below, the following facts (the "Alleged Omitted Information"):

(i) Exxon's actual investment and asset valuation processes did not incorporate GHG or carbon "proxy costs" in a manner that was consistent with the Company's public representations or Exxon's own internal policies (*see* §IV.E., *supra*);

(ii) Exxon did not incorporate GHG or carbon "proxy costs" into their asset impairment evaluation processes (*see* §IV.E., *supra*);

(iii) Exxon's Canadian Bitumen Operations were operating at a loss (*see* §IV.G., *supra*);

(iv) Exxon knew the Kearl Operation could not satisfy the SEC definition for proved reserves at year-end 2016, absent an extraordinary – and, by Exxon's own internal estimates, unexpected – rise in the price of oil (*see* §IV.G., *supra*); and

(v) A significant portion of Exxon's Rocky Mountain dry gas operations were impaired by no later than year-end 2015, thus requiring the Company to record an asset impairment charge in its financial statements (*see* §IV.G., *supra*).

1. Defendants' 2014 Misstatements and Omissions

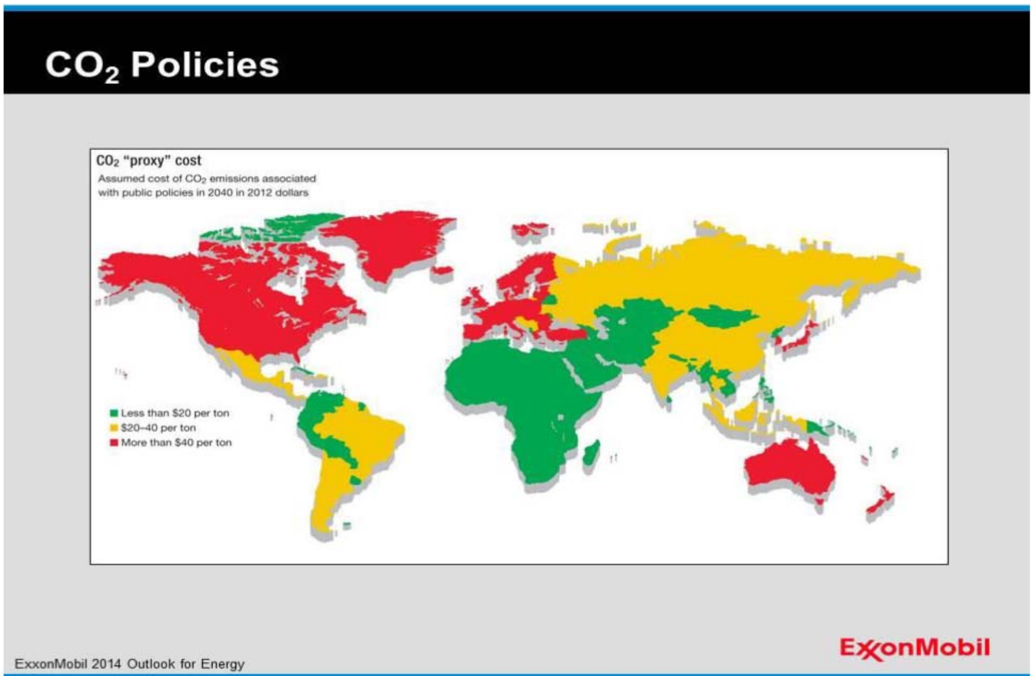
248. The Class Period begins on March 31, 2014. On that day, Defendants issued the MTR Report, which was aimed at assuring investors that, through the use of a self-described "proxy cost" of carbon, the Company was properly accounting for climate change-related risks to its assets. Among other things, the MTR Report stated:

> As detailed below, ExxonMobil makes long-term investment decisions based in part on our rigorous, comprehensive annual analysis of the global outlook for energy, an analysis that has repeatedly proven to be consistent with the International Energy Agency *World Energy Outlook*, the U. S. Energy Information Administration *Annual Energy Outlook* and other reputable, independent sources. For several years, our *Outlook for Energy* has explicitly accounted for the prospect of policies regulating greenhouse gas emissions (GHG). This factor, among many others, has informed investments decisions that have led ExxonMobil to become the leading producer of cleaner-burning natural gas in the United States, for example.
>
> Based on this analysis, we are confident that none of our hydrocarbon reserves are now or will become "stranded."
>
> * * *
>
> Each year, ExxonMobil analyzes trends in energy and publishes our forecast of global energy requirements in our *Outlook for Energy*. The Outlook provides the foundation for our business and investment planning, and is compiled from the

breadth of the company's worldwide experience in and understanding of the energy industry. It is based on rigorous analyses of supply and demand, technological development, economics, and government policies and regulations, and it is consistent with many independent, reputable third-party analyses.

ExxonMobil's current *Outlook for Energy* extends through the year 2040, and contains several conclusions that are relevant to questions raised by stakeholder organizations. Understanding this factual and analytical foundation is crucial to understanding ExxonMobil's investment decisions and approach to the prospect of further constraints on carbon.

* * *



We also address the potential for future climate-related controls, including the potential for restriction on emissions, through the use of a proxy cost of carbon. This proxy cost of carbon is embedded in our current *Outlook for Energy*, and has been a feature of the report for several years. The proxy cost seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels.

249. On the same day, March 31, 2014, Defendants also released a report entitled "Energy and Climate."[41] In this report, the Company stated, among other things:

> Each year ExxonMobil develops and publishes its views on energy sources, requirements and trends. This Outlook provides the foundation for our business and investment planning and is compiled from the breadth of the company's worldwide experience in and understanding of the energy industry and is based on rigorous analyses of demands, technology, economics and policies. Our most recent Outlook spans the period through 2040. The Outlook is reviewed and discussed extensively with the company's Management Committee and Board prior to its release.
>
> * * *
>
> A key factor in assessing the world's energy outlook is the impact of public policies. One area of significant interest in recent years relates to policies enacted to reduce greenhouse gas (GHG) emissions.
>
> Today there are policies in effect that are designed to limit GHG growth, and we anticipate additional policies developing over time. We expect OECD nations to continue to lead the way in adopting these policies, with developing nations gradually following, led by countries like China and Mexico.
>
> Future policies related to limiting GHG emissions remain uncertain and likely will vary over time and from country to country. However, for our Outlook we use a cost of carbon as a proxy to model a wide variety of potential policies that might be adopted by governments to help stem GHG emissions. For example, in the OECD nations [which include Canada and the United States], we apply a proxy cost that is about $80 per ton in 2040.
>
> * * *
>
> This GHG proxy cost is integral to ExxonMobil's planning, and we believe the policies it reflects will increase the pace of efficiency gains and the adoption by society of lower-carbon technologies through the Outlook period, as well as accelerate the growth of lower carbon sources of energy like natural gas and renewables, while suppressing the global use of coal.

250. Defendants' statements described in ¶¶248-249 above were false and misleading when made, because Defendants failed to disclose the truth about the Alleged Omitted Information described in ¶247(a)-(b), *supra*. Specifically, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, at the time Exxon made the

[41] http://cdn.exxonmobil.com/~/media/global/files/energy-and-environment/report---energy-and-climate.pdf.

above statements, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than the proxy costs described in Exxon's statements above. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, in direct contrast to the above statements, Exxon actually used ***no proxy costs at all*** for certain of its projects, including – from at least "the fall of 2015" on – the Canadian Bitumen Operations. *See* ¶¶142-144, *supra*. Moreover, contrary to the above statement that Exxon's Outlook both incorporated a carbon proxy cost and served as "the foundation for [Exxon's] business and investment planning," the Company did not incorporate carbon proxy costs into ***any*** of its asset impairment determination processes until at least 2016. *See* ¶¶145-147, *supra*. Based on the foregoing, the statements described in ¶¶248-249 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

2. Defendants' 2015 Misstatements and Omissions

251. On February 23, 2015, Defendants announced that Exxon had replaced 104% of its 2014 production by adding proved oil and gas reserves totaling 1.5 billion oil-equivalent barrels, including a 162% replacement ratio for crude oil and other liquids. At year-end 2014, Exxon's proved reserves totaled 25.3 billion oil-equivalent barrels, which was made up of 54% liquids and 46% natural gas. Natural gas additions totaled approximately 300 million oil-equivalent barrels for a 42% replacement ratio. In Canada, reserve additions totaled almost 700 million barrels as a result of the Kearl resource. At the time, Defendant Tillerson stated that "'ExxonMobil's diverse global portfolio of attractive opportunities puts us in a unique position to execute our strategy to identify, evaluate and develop new energy supplies,'" and "'[o]ur ability to achieve an industry-leading record

of long-term reserves replacement is made possible by the size and diversity of ExxonMobil's resource base along with its project execution and technical capabilities.'"

252. Defendants' statements in ¶251 were false and misleading when made, because Defendants failed to disclose the Alleged Omitted Information described in ¶247(a)-(b), *supra*. Specifically, Defendants failed to disclose that, until at least June 2014, the reserve assets at issue in ¶251 had been subject to internal policies that prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. Defendants also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶251. *See* ¶¶142-147, *supra*. By failing to disclose the above information, the statements described in ¶251 above materially misled investors with regard to the efforts that Defendants had undertaken to evaluate and account for the potential impact that climate change-related risks may have on the value of the reserve assets at issue in ¶251.

253. On February 25, 2015, Exxon filed its 2014 Form 10-K, which was signed by Defendants Tillerson, Swiger and Rosenthal. Among other things, Exxon stated in the Company's 2015 Form 10-K:

> ExxonMobil includes estimates of potential costs related to possible public policies covering energy-related greenhouse gas emissions in its long-term *Outlook for Energy*, which is used as a foundation for assessing the business environment and in its investment evaluations. The information provided in the Long-Term Business Outlook includes ExxonMobil's internal estimates and forecasts based upon internal data and analyses as well as publicly available information from external sources including the International Energy Agency.

254. Defendants' statements in ¶253 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*.

Specifically, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, in direct contrast to the above statements, Exxon actually used ***no proxy costs at all*** for certain of its projects, including – from at least "the fall of 2015" on – the Canadian Bitumen Operations. *See* ¶¶142-144, *supra*. Moreover, contrary to the above statement that Exxon's Outlook both incorporated a GHG proxy cost and served as "a foundation for assessing the business environment and in [Exxon's] investment evaluations," the Company failed to incorporate carbon proxy costs into ***any*** of its asset impairment determination processes until at least 2016. *See* ¶¶145-147, *supra*. Based on the foregoing, the statements described in ¶253 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

255. Defendants' 2014 Form 10-K filed on February 25, 2015 also contained certifications pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, as well as certifications pursuant to Securities Exchange Act Rule 13a-14(a) (the "SEC Certifications"), which were signed by Defendants Tillerson, Swiger and Rosenthal. The SEC Certifications stated that the filing "fully complies" with the applicable requirements of the Exchange Act, and that the information in the filing "fairly presents, in all material respects, the financial condition and results of operations of the Company." In addition, the SEC Certifications represented that Defendants Tillerson, Swiger and Rosenthal were "responsible for establishing and maintaining disclosure controls and procedures . . . and internal control over financial reporting," and that Defendants

Tillerson, Swiger and Rosenthal had designed such controls "to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to [Defendants Tillerson, Swiger and Rosenthal]." The SEC Certifications also certified that Defendants Tillerson, Swiger and Rosenthal had designed Exxon's controls and procedures "to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with [GAAP]." In addition, the SEC Certifications stated, among other things, that Defendants Tillerson, Swiger and Rosenthal had "[e]valuated the effectiveness of [Exxon's] disclosure controls and procedures."

256. Virtually identical statements to those set forth in ¶255 above were contained in all of Exxon's Form 10-K and Form 10-Q filings with the SEC throughout the Class Period, all of which included SEC Certifications signed by Defendants Tillerson and Swiger, and all but two of which included SEC Certifications signed by Defendant Rosenthal. The SEC Certifications represented to investors, among other things, that Defendants Tillerson, Swiger and Rosenthal had ensured that Exxon's internal controls were adequate to ensure accurate financial reporting. As detailed herein, Defendants' Class Period SEC Certifications were materially false and misleading, as Exxon's SEC filings throughout the Class Period each failed to disclose at least some of the Alleged Omitted Information and violated GAAP and SEC accounting and disclosure rules, as detailed in §V.B., *infra*.

257. On March 4, 2015, Exxon hosted a meeting with analysts to discuss Exxon's Outlook, business strategy and investment plans. The meeting was attended by, among others, Defendants Tillerson, Woodbury and Swiger, all of whom spoke on Exxon's behalf at some point during the meeting. During the call, Defendant Tillerson told analysts that Exxon's investment decisions were "[i]nformed by our energy outlook and tested across a broad range of economic parameters including a broad range of commodity prices," which "underpins and guides our company's business strategies

and our investments" and "position[s] the Corporation for long-term performance across a broad range of business conditions."

258. At the March 4, 2015 analyst meeting, Defendant Tillerson also addressed the addition of bitumen reserves in 2014, largely from the Kearl Operation. Defendant Tillerson noted that these reserves helped Exxon achieve a "proved reserve replacement ratio [of] 104%, marking the 21st consecutive year [Exxon] added more oil and natural gas reserves than [Exxon] produced."

259. Defendants' statements in ¶¶257-258 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, Defendants failed to disclose that, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, which would have affected at least some of the reserve assets at issue in ¶258 above, the statements described in ¶¶257-258 were materially misleading to investors. The statements described in ¶¶257-258 above also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶258. *See* ¶¶142-147, *supra*. By failing to disclose the above information, the statements described in ¶¶257-258 above materially misled investors with regard to the efforts that Defendants had undertaken to evaluate and account for the potential impact that climate change-related risks may have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue in ¶258.

260. On April 30, 2015, Exxon held its first quarter 2015 earnings conference call. During the call, Defendant Woodbury stated, among other things, that Exxon was "fairly confident, given the range of variables that we test [in the Outlook for Energy], that we're looking at about a 35% growth in energy demand between 2010 and 2040. Fundamentally, that is how Exxon-Mobil sets its investment plans, and obviously, we continue to test that not only annually but periodically."

261. The statements described in ¶260 above were false and misleading when made, because they failed to disclose the truth about the Alleged Omitted Information described in ¶247(a)-(b), *supra*. Specifically, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, the statements described in ¶260 above also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶260. *See* ¶¶141-147, *supra*. As such, the statements described in ¶260 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

262. On May 27, 2015, Exxon held its annual shareholders meeting. The meeting was attended by, among others, Defendants Tillerson and Woodbury, both of whom spoke on Exxon's behalf at some point during the meeting. During the meeting, Defendants highlighted Exxon's previously reported 2014 corporate earnings of $32.5 billion and the 104% reserves replacement ratio.

Defendant Tillerson also assured Exon's shareholders that the Company's "investment decisions are based on a long-term view informed by our energy outlook, and they are tested across a broad range of economic parameters including a broad range of commodity prices."

263. At the May 27, 2015 shareholders meeting, Defendant Tillerson further stated that the Outlook that "underpins" Exxon's business strategies and investments also "anticipate[s] that government policies would impose rising cost[s] on carbon dioxide emissions." Tillerson stated that Exxon had always described climate change as a "risk management problem" and that "in risk management, you have to consider the range of possible consequences and be prepared for those."

264. Defendants' statements in ¶¶262-263 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, Defendants failed to disclose that, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, which would have likely affected at least some of the earnings and reserve assets at issue in ¶262 above, the statements described in ¶¶262-263 were materially misleading to investors. The statements described in ¶¶262-263 above also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶262. *See* ¶¶142-147, *supra*. By failing to disclose the above information, the statements described in ¶¶262-263 above materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate

change-related risks may have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue in ¶262.

265. On July 31, 2015, Exxon held its second quarter earnings call, during which the following exchange took place:

> ***Paul Sankey - Wolfe Research -Analyst*** One thing I'm worried about Jeff, is reserves replacement. Just insofar as I don't think you've had any FIDs this year. And I also noticed that your reserves booking last year were heavily dominated by the US. Could you update us on where we stand as regard to reserves replacement?
>
> ***Jeff Woodbury - ExxonMobil Corporation - VP of IR and Secretary*** Yes, well, obviously that's an annual process. And we're – we've fully replaced our production for 21 straight years. We've got a very good inventory that we're working on, to convert to an FID decision in proved reserves, as well as a very active exploration program. So we've been very successful, as the history shows, and I'd say that the prognosis in the future will remain the same.

266. During the July 31, 2015 earnings call, the following exchange also took place:

> ***John Herrlin - Societe Generale - Analyst*** Most things have been asked, Jeff, but you have seen a lot of your IOC peers, as well as some large cap E&Ps take significant impairments. You have a very robust resource base, as you've stated. Are there any issues for, say, intermediate term projects coming off the books on a long-term basis for Exxon?
>
> ***Jeff Woodbury - ExxonMobil Corporation - VP of IR and Secretary*** Well, there's two parts to your question. One is, if we've got resources that are in a resource base that ultimately we don't see the long-term value, as I indicated earlier, John, we will look for ways to monetize them, which may include some level of divestment. In terms specifically of impairments, as you know, we live in a commodity price environment that has great volatility. But as I've said several times in our annual outlook, the longer-term market fundamentals remain unchanged, and the lifespan of our assets really are measured in decades. Therefore, long-term price views are more stable, and quite frankly, more meaningful for future cash flows and market value. So we expect the business to more than recover the carrying value of the assets on the books. Obviously in the course of our ongoing asset management efforts, we do confirm that asset values fully cover carrying costs.
>
> ***John Herrlin - Societe Generale - Analyst*** Great, that's what I wanted to hear.

267. Defendant Woodbury's statements in ¶¶265-266 were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, Defendants failed to disclose that, until at least June 2014, Exxon's internal

policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, which would have affected at least some of the reserve assets at issue in ¶¶265-266 above, the statements described in ¶¶265-266 were materially misleading to investors. The statements described in ¶¶265-266 above also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶¶265-266. *See* ¶¶142-147, *supra*. By failing to disclose the above information, the statements described in ¶¶265-266 above materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks may have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue in such statements.

268. On October 30, 2015, Exxon held its third quarter earnings call. Among other things, Defendant Woodbury highlighted major new project developments, such as the Kearl Operation, that were contributing to production rates. Specifically, Defendant Woodbury stated that such projects provide "a very strong foundation to our production, but importantly a valuable foundation that contributes significant cash flow."

269. Defendant Woodbury's statements in ¶268 were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, Defendant Woodbury failed to disclose that, until at least June 2014, the reserve assets at issue in ¶268 had been subject to internal policies that prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly

represented that it used in connection with its business decisions. *See* ¶¶138-141, *supra*. Defendant Woodbury also failed to disclose that, contrary to what investors had been led to believe, Exxon had failed to use ***any proxy costs at all*** for certain of its projects – including, from at least "the fall of 2015" on – the Canadian Bitumen Operations, which included the Kearl Operation, or that Exxon had failed to incorporate carbon proxy costs into ***any*** of the Company's asset impairment determination processes for the reserve assets at issue in ¶268. *See* ¶¶142-147, *supra*. By failing to disclose the above information, the statements described in ¶268 above materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks may have on the value of the reserve assets at issue in such statements.

3. Defendants' 2016 Misstatements and Omissions

270. On February 2, 2016, Defendants issued Exxon's fourth quarter and year-end 2015 earnings press release. Included in that release was the following "Estimated Key Financial and Operating Data":

Exxon Mobil Corporation
Fourth Quarter 2015
(millions of dollars, unless noted)

	Fourth Quarter		Twelve Months	
	2015	2014	**2015**	2014
Earnings / Earnings Per Share				
Total revenues and other income	**59,807**	87,276	**268,882**	411,939
Total costs and other deductions	**57,179**	78,434	**246,916**	360,309
Income before income taxes	**2,628**	8,842	**21,966**	51,630
Income taxes 1	**(202)**	2,060	**5,415**	18,015
Net income including noncontrolling interests	**2,830**	6,782	**16,551**	33,615
Net income attributable to noncontrolling interests	**50**	212	**401**	1,095
Net income attributable to ExxonMobil (U.S. GAAP)	**2,780**	6,570	**16,150**	32,520
Earnings per common share (dollars)	**0.67**	1.56	**3.85**	7.60

271. Defendants' statements in ¶270 above were false and misleading when made, because Defendants failed to properly record the significant asset impairment charge concerning Exxon's Rocky Mountain dry gas operations, which the Company was required to record pursuant to ASC 360-10. *See* §V.B.6, *infra*.

272. On February 2, 2016, Exxon held its fourth quarter 2015 earnings conference call. On that call, Defendant Woodbury told analysts that the Company "feel[s] very good about the resource potential" of the Kearl Operation, and that Exxon "[has] built [its] business to ensure that it is durable in a low-price environment." Defendant Woodbury also stated: "we still feel very good about the long-term financial performance of these assets. Because remember, when we make the final investment decision, we're testing those investments across a wide range of economic parameters, including price. And as I said earlier, our fundamental focus has been making sure that our Business is viable and durable in a low-price environment."

273. During the same February 2, 2016 call, Defendant Woodbury also stated the following:

> The way we have prudently managed our cash, our disciplined investment and our leading financial and operating results, all of which has allowed us the financial flexibility to invest through the cycle as we've been discussing.
>
> I tell you that the current environment is clearly tough, but we've managed the business to be durable on the low end of commodity prices. We're very well positioned to continue the same level of superior performance in the future, and we think that all underpins the strong credit rating that we have.

274. During the February 2, 2016 earnings call, Defendant Woodbury also told one analyst that, despite the plunge in prices over approximately 18 months, Exxon had not revised the range of prices it uses to evaluate investment decisions, stating that "we continue to see that the [existing] range is applicable."

275. On February 19, 2016, Defendants issued a release entitled "ExxonMobil Announces 2015 Reserves Additions." The release stated in pertinent part that Exxon had "added 1 billion oil-

equivalent barrels of proved oil and gas reserves in 2015, replacing 67 percent of production, including a 219 percent replacement ratio for crude oil and other liquids," such that "[a]t year-end 2015, ExxonMobil's proved reserves totaled 24.8 billion oil-equivalent barrels." The release quoted Defendant Tillerson as stating that "'ExxonMobil has a successful track record of proved reserves replacement over the long term, demonstrating the strength of our global strategy to identify, evaluate, capture and advance high-quality opportunities,'" and that the Company's "'proved reserves represent a diverse portfolio that positions [it] to create shareholder value as [it] suppl[ies] long-term energy demand growth.'" The release further quoted Defendant Tillerson as emphasizing that Exxon would "'continue to apply [its] disciplined, paced investing approach as [it] develop[s] [its] industry-leading resource base.'"

276. Defendants' statements in ¶¶272-275 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(e), *supra*. Specifically, for the same reasons as detailed above, by failing to disclose the omitted information described in ¶247(a)-(b), Defendants materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks might have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue in ¶¶272-275 above. In addition, the statements in ¶¶272-275 regarding, among other things, Exxon's reserve levels and reserve replacement ratios, the Company's "'industry-leading resource bases'" its "resource potential," the "long-term financial performance of [its reserve] assets," that the Company is "well positioned to continue the same level of superior performance in the future," were materially misleading to investors in light of Defendants' failure to disclose that, ***at the time***, the Canadian Bitumen Operations were operating at a loss, the Kearl Operation was unlikely to satisfy the SEC

definition for proved reserves at year-end 2016, and a significant portion of Exxon's Rocky Mountain dry gas operations were impaired. *See* §IV.G. , *supra*.

277. On February 24, 2016, Exxon filed with the SEC its 2015 Form 10-K. The 2015 Form 10-K was signed by Defendants Tillerson, Swiger and Rosenthal. Concerning Exxon's "Disclosure of Reserves," and specifically its "Summary of Oil and Gas Reserves at Year-End 2015," the 2015 Form 10-K stated, in pertinent part, as follows:

	Crude Oil	**Natural Gas Liquids**	**Bitumen**	**Synthetic Oil**	**Natural Gas**	**Oil-Equivalent Basis**
	(million bbls)	*(million bbls)*	*(million bbls)*	*(million bbls)*	*(billion cubic ft)*	*(million bbls)*
Proved Reserves						
Developed						
Consolidated Subsidiaries						
United States	1,155	272	-	-	13,353	3,652
Canada/South America	92	9	4,108	581	552	4,882
Europe	158	34	-	-	1,593	458
Africa	738	162	-	-	750	1,025
Asia	1,586	121	-	-	4,917	2,526
Australia/Oceania	73	34	-	-	1,962	434
Total Consolidated	3,802	632	4,108	581	23,127	12,977
Equity Companies						
United States	221	7	-	-	156	254
Europe	25	-	-	-	6,146	1,049
Asia	802	349	-	-	15,233	3,690
Total Equity Company	1,048	356	-	-	21,535	4,993
Total Developed	4,850	988	4,108	581	44,662	17,970
Undeveloped						
Consolidated Subsidiaries						
United States	1,223	396	-	-	6,027	2,624
Canada/South America	168	6	452	-	575	722
Europe	26	8	-	-	363	95
Africa	225	5	-	-	43	237
Asia	1,239	-	-	-	412	1,308
Australia/Oceania	52	31	-	-	5,079	929
Total Consolidated	2,933	446	452	-	12,499	5,915
Equity Companies						
United States	33	6	-	-	64	50
Europe	-	-	-	-	1,757	293
Asia	275	52	-	-	1,228	531
Total Equity Company	308	58	-	-	3,049	874
Total Undeveloped	3,241	504	452	-	15,548	6,789
Total Proved Reserves	8,091	1,492	4,560	581	60,210	24,759

278. The 2015 Form 10-K also announced Exxon's transfer of approximately 2.7 GOEB of reserve assets from proved undeveloped to proved developed reserves, mostly attributable to transfers relating to the Kearl Operation.

279. In addition, the 2015 Form 10-K stated that "Management views the Corporation's financial strength as a competitive advantage," and further stated:

> The Corporation has an active asset management program in which underperforming assets are either improved to acceptable levels or considered for divestment. The asset management program includes a disciplined, regular review to ensure that all assets are contributing to the Corporation's strategic objectives. The result is an efficient capital base, and the Corporation has seldom had to write down the carrying value of assets, even during periods of low commodity prices.

280. Defendants' statements in ¶¶277-279 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(e), *supra*. Specifically, for the same reasons as detailed above, by failing to disclose the omitted information described in ¶247(a)-(b), Defendants materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks might have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue in ¶¶277-279 above. In addition, the statements described in ¶¶277-279 above were materially misleading to investors in light of Defendants' failure to disclose that, ***at the time***, the Canadian Bitumen Operations were operating at a loss, the Kearl Operation was unlikely to satisfy the SEC definition for proved reserves at year-end 2016, and a significant portion of Exxon's Rocky Mountain dry gas operations were impaired. *See* §IV.G., *supra*.

281. The 2015 Form 10-K also stated:

> In general, the Corporation does not view temporarily low prices or margins as a trigger event for conducting impairment tests. The markets for crude oil, natural gas and petroleum products have a history of significant price volatility. Although prices will occasionally drop significantly, industry prices over the long term will continue to be driven by market supply and demand. On the supply side, industry

> production from mature fields is declining, but this is being offset by production from new discoveries and field developments. OPEC production policies also have an impact on world oil supplies. The demand side is largely a function of global economic growth. The relative growth/decline in supply versus demand will determine industry prices over the long term, and these cannot be accurately predicted.
>
> If there were a trigger event, the Corporation estimates the future undiscounted cash flows of the affected properties to judge the recoverability of carrying amounts. Cash flows used in impairment evaluations are developed using estimates for future crude oil and natural gas commodity prices, refining and chemical margins, and foreign currency exchange rates. Volumes are based on projected field and facility production profiles, throughput, or sales. These evaluations make use of the Corporation's price, margin, volume, and cost assumptions developed in the annual planning and budgeting process, and are consistent with the criteria management uses to evaluate investment opportunities. Where unproved reserves exist, an appropriately risk-adjusted amount of these reserves may be included in the evaluation.
>
> An asset group would be impaired if its undiscounted cash flows were less than the asset's carrying value. Impairments are measured by the amount by which the carrying value exceeds fair value. Cash flow estimates for impairment testing exclude the effects of derivative instruments.
>
> In light of continued weakness in the upstream industry environment in late 2015, the Corporation undertook an effort to assess its major long-lived assets most at risk for potential impairment. The results of this assessment confirm the absence of a trigger event and indicate that the future undiscounted cash flows associated with these assets substantially exceed the carrying value of the assets. The assessment reflects crude and natural gas prices that are generally consistent with the long-term price forecasts published by third-party industry experts. Critical to the long-term recoverability of certain assets is the assumption that either by supply and demand changes, or due to general inflation, prices will rise in the future. Should increases in long-term prices not materialize, certain of the Corporation's assets will be at risk for impairment. Due to the inherent difficulty in predicting future commodity prices, and the relationship between industry prices and costs, it is not practicable to reasonably estimate a range of potential future impairments related to the Corporation's long-lived assets.

282. Defendants' statements in ¶281 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(b), (e), *supra*. Specifically, contrary to Defendants' statement that Exxon's asset impairment calculations "make use of the Corporation's price, margin, volume, and cost assumptions developed in the annual planning and budgeting process, and are consistent with the criteria management uses to evaluate investment

opportunities," Exxon ***did not incorporate carbon proxy costs into any of its asset impairment determination processes*** for 2015. *See* ¶¶145-147, *supra*. In addition, Defendants' statements described in ¶281 above were materially misleading to investors because they failed to disclose that a significant portion of Exxon's Rocky Mountain dry gas operations were impaired at year-end 2015. *See* ¶¶185-194, *supra*; Wright Decl., ¶¶87-107.

283. Lastly, the 2015 Form 10-K stated:

> For many years, the Corporation has taken into account policies established to reduce energy-related greenhouse gas emissions in its long-term *Outlook for Energy*, which is used as a foundation for assessing the business environment and business strategies and investments. The climate accord reached at the recent Conference of the Parties (COP 21) in Paris set many new goals, and while many related policies are still emerging, the *Outlook for Energy* continues to anticipate that such policies will increase the cost of carbon dioxide emissions over time. For purposes of the *Outlook for Energy*, we continue to assume that governments will enact policies that impose rising costs on energy-related CO_2 emissions, which we assume will reach an implied cost in OECD nations of about $80 per tonne in 2040. China and other leading non-OECD nations are expected to trail OECD policy initiatives. Nevertheless, as people and nations look for ways to reduce risks of global climate change, they will continue to need practical solutions that do not jeopardize the affordability or reliability of the energy they need. Thus, all practical and economically viable energy sources, both conventional and unconventional, will be needed to continue meeting global energy needs – because of the scale of worldwide energy demand.
>
> The information provided in the Long-Term Business Outlook includes ExxonMobil's internal estimates and forecasts based upon internal data and analyses as well as publicly available information from external sources including the International Energy Agency.

284. Defendants' statements in ¶283 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, according to sworn testimony from the NYOAG and internal Exxon documents disclosed in the NYOAG Subpoena Action, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this

separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, in direct contrast to the above statements, Exxon actually used ***no proxy costs at all*** for certain of its projects, including – from at least "the fall of 2015" on – the Canadian Bitumen Operations, and the Company failed to incorporate carbon proxy costs into ***any*** of its asset impairment determination processes for 2015. *See* ¶¶142-147, *supra*. Based on the foregoing, the statements described in ¶283 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

285. The 2015 Form 10-K also stated:

> When crude oil and natural gas prices are in the range seen in late 2015 and early 2016 for an extended period of time, under the SEC definition of proved reserves, certain quantities of oil and natural gas, such as oil sands operations in Canada and natural gas operations in North America could temporarily not qualify as proved reserves. Amounts that could be required to be de-booked as proved reserves on an SEC basis are subject to being re-booked as proved reserves at some point in the future when price levels recover, costs decline, or operating efficiencies occur.
>
> Under the terms of certain contractual arrangements or government royalty regimes, lower prices can also increase proved reserves attributable to ExxonMobil. We do not expect any temporary changes in reported proved reserves under SEC definitions to affect the operation of the underlying projects or to alter our outlook for future production volumes.

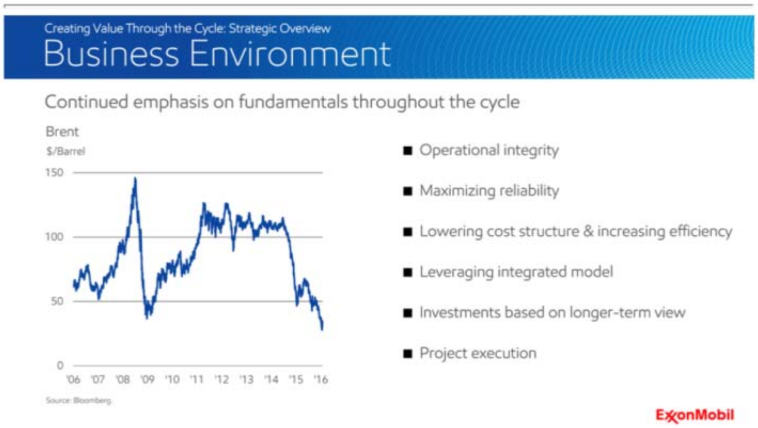
286. Defendants' statements in ¶285 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a), (c)-(d), *supra*. Specifically, as detailed *supra*, at the time Defendants made the statement described in ¶285 above, they knew that the Kearl Operation would not satisfy the SEC definition for proved reserves at year-end 2016, absent an extraordinary – and, by Exxon's own subsidiary's internal estimates, unexpected – rise in the price of oil. *See* ¶¶175-184, *supra*. In fact, at the time, the year-to-date average WCS price was just $19.83 (USD/bbl), and Defendants knew that the Kearl Operation would only satisfy the SEC definition for proved reserves at year-end 2016 if the average WCS price over

the remainder of the year was $38.77 (USD/bbl) – or nearly ***double*** the year-to-date average. *See id.*; *see also* Wright Decl., ¶¶58-72. In addition, Defendants also failed to disclose that, ***at the time***, they were not applying ***any carbon proxy costs at all*** to the Canadian Bitumen Operations, or that the Canadian Bitumen Operations had been operating at a loss for several months. *See* ¶¶142-144, 170-174, *supra*. As such, Defendants' disclosure regarding the possibility that the Kearl Operation might need to be de-booked at year-end was materially misleading to investors.

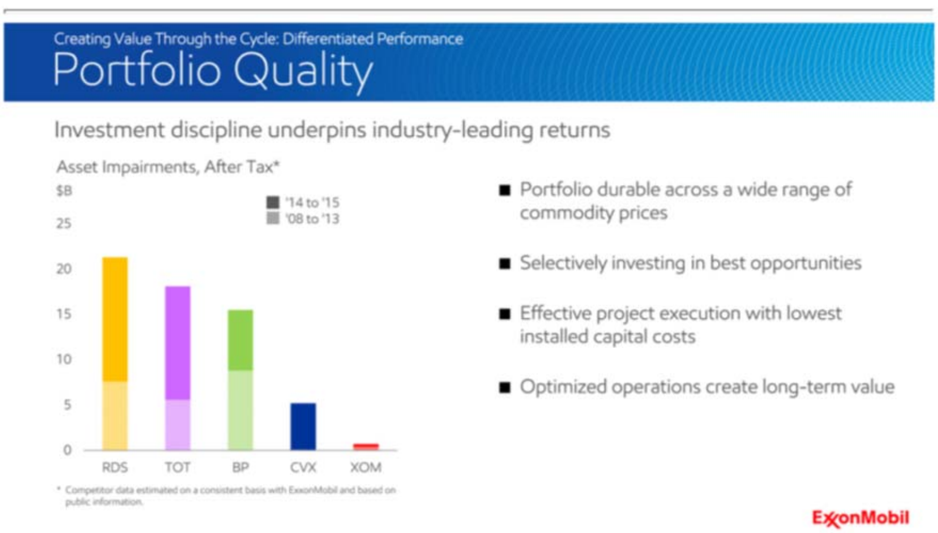
287. In addition to being materially misleading for the reasons set forth in ¶¶277-286, *supra*, Exxon's 2015 Form 10-K also violated GAAP and SEC accounting and disclosure rules, for the reasons set forth in §V.B., *infra*.

288. On March 2, 2016, Defendants filed a final prospectus with the SEC in connection with the March 2016 Debt Offering. The registration statement and prospectus used to complete the March 2016 Debt Offering expressly incorporated by reference Exxon's 2015 Form 10-K. As such, these documents were materially false and misleading for the same reason set forth in ¶¶277-286, *supra*.

289. On March 2, 2016, Exxon also conducted its 2016 analyst meeting at the New York Stock Exchange building in New York City. Defendant Tillerson displayed the following slide during his opening remarks, which he said demonstrated that, despite the fact that "the business environment ha[d] changed dramatically, even since . . . last year, with a sharp decrease in crude oil and natural gas prices," due to its "[o]perational integrity" and "reliability," Exxon was "uniquely suited to endure these conditions and outperform competition, leaving [Exxon] best-positioned to capture value in the upturn."

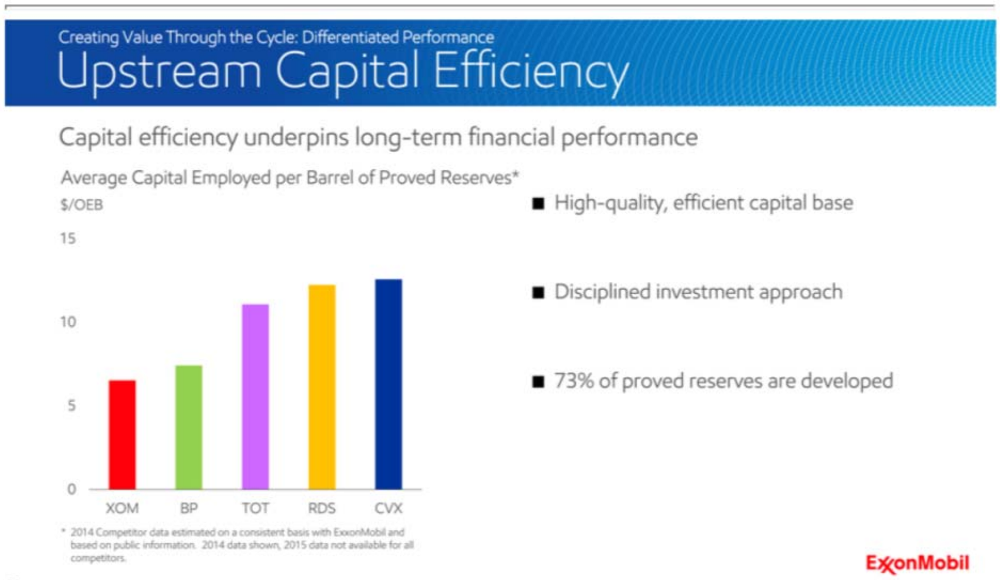


290. Defendant Tillerson also used the following slides at the March 2, 2016 analyst meeting to, among other things, highlight the quality of Exxon's reserves and assert that, regardless of the impairment charges Exxon's competitors were taking on their oil reserves, the value of Exxon's reserves were not impaired because of the Company's "disciplined investment approach, effective project management and innovative technologies," stating in pertinent part as follows:



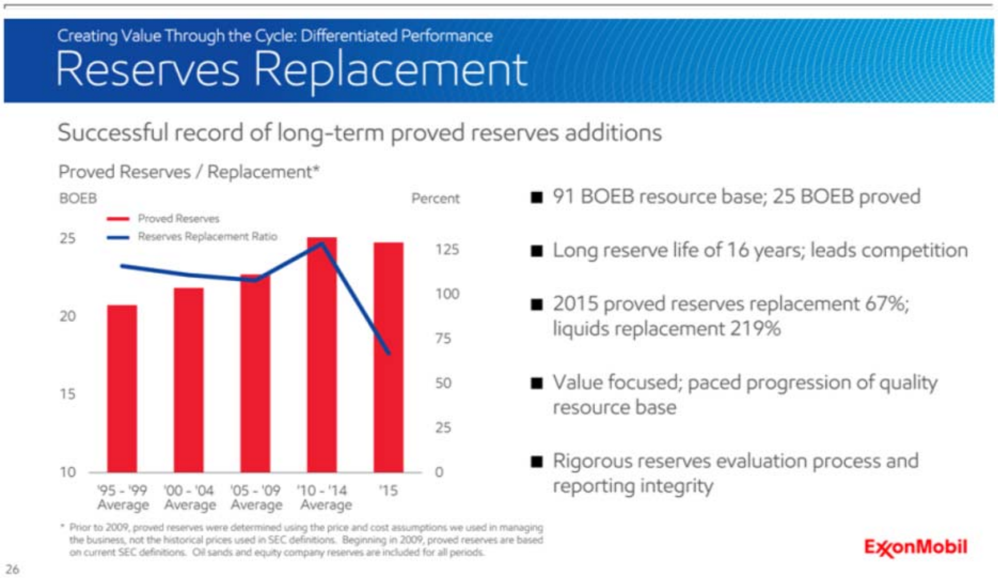
> The quality of ExxonMobil's portfolio is also evident relative to significant recent asset impairments by our competitor group. Not shown [on the graph] are the North American pure play E&P companies, which, if you look at the last couple of years, took impairments of over $120 billion; and if you look at the last eight years, took impairments of over $200 billion.
>
> Now, while these impairments will improve competitor return on capital employed performance in the future years, they represent a significant destruction of shareholder assets. Our investment discipline delivers industry-leading returns and a portfolio that is durable across a wide range of commodity prices. Effective project

execution provides the lowest installed capital costs, which, along with optimized operations, creates a long-term value that simply outpaces our competitors.



This chart provides perspective on the quality of our upstream assets. Upstream capital efficiency underpins long-term financial performance. The plot illustrates ExxonMobil's structural advantage in capital employed per barrel of crude reserves, which leads competition at $6.50 a barrel. Our high-quality, efficient capital base is an outcome of our investment approach, consistently applied for decades. Importantly, 73% of our proved reserves are developed and are in production, contributing to the bottom line.

Next, I will discuss reserves replacement, which is an outcome of our disciplined investment approach. ExxonMobil has a successful track record of long-term proved reserves additions, demonstrating the strength of our global strategy to identify, evaluate, capture and advance high-quality opportunities. The Corporation has a diverse resource base of 91 billion oil equivalent barrels, all in various stages of evaluation, design and development. As you can see in the graphic, we consistently convert sizable portions of the resource base along with newly acquired resources into proved reserves, which currently total 25 billion oil-equivalent barrels.



> We have consistently added about 1.5 billion to 2 billion oil equivalent barrels of resource to prove reserves each year, replacing over 100% of production for over two decades. We have a long reserve life of 16 years at current production rates, which does lead to competition. Last year, we replaced 67% of production, adding 1 billion oil-equivalent barrels of proved reserves in both oil and gas, but that reflects also a 219% replacement of crude oil and other liquids.
>
> The level of reserve replacement in any given year is an outcome of our investment choices, and it is not an objective. We are value-focused, making the best long-term decisions for our shareholders, progressing opportunities at the right time and deploying capital efficiently to create that long-term shareholder value, even if it means interrupting a 21-year trend.
>
> The quality of our resource opportunities remain strong into the future. They have not diminished in the current business climate. ExxonMobil maintains a rigorous reserves evaluation process. And as with all aspects of our business, we approach the reporting of reserve balances with the highest integrity.

291. During the March 2, 2016 analyst meeting, Defendant Tillerson also showed the following slide, and stated the following:

Now let's take a look at our approach to environmental protection. We recognize that meeting the world's growing energy needs while protecting the environment is one of today's grand challenges. We are committed to lowering emissions, reducing spills, and minimizing waste to mitigate the environmental impact of our operations. We have developed and deployed advanced technologies and enhanced products that have lowered greenhouse gas emissions across the value chain.

Sustainable improvements in our operations have reduced cumulative greenhouse gases by more than 20 million metric tons over the past decade. For example, we have increased our energy efficiency significantly over time by installing additional cogeneration facilities in our operations, making us an industry leader with current gross capacity of 5.5 gigawatts. And products we produce, like cleaner-burning natural gas, also help to reduce global emissions.

At ExxonMobil, we do take the risk of climate change seriously. We have studied climate change for almost 40 years, and we consistently collaborate and share our research with leading scientific institutions, top universities, the United Nations and other public stakeholders. We also engage in constructive dialogue on climate change policy options with NGOs, industry and policymakers.

292. Defendant Tillerson's statements described in ¶¶289-291 above were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(e), *supra*. Specifically, for the same reasons as detailed above, by failing to disclose the omitted information described in ¶247(a)-(b), Defendants materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks might have on Exxon's reserve assets and long-term business prospects, including, specifically, the value of the reserve assets at issue

in ¶¶289-291 above. In addition, the statements described in ¶¶289-291 above were materially misleading to investors because they failed to disclose that, ***at the time***, the Canadian Bitumen Operations were operating at a loss, the Kearl Operation was unlikely to satisfy the SEC definition for proved reserves at year-end 2016, and a significant portion of Exxon's Rocky Mountain dry gas operations were impaired. *See* §IV.G., *supra*.

293. On March 30, 2016, Defendants published Exxon's 2015 Corporate Citizenship Report, which purported to describe Exxon's efforts to lower climate change risks. In the report, Exxon represented that since the transition to lower emissions sources would take "many decades," none of Exxon's proven hydrocarbon reserves were or would become "stranded." The report also stated, in relevant part, as follows:

> By 2040, the world's population is projected to reach 9 billion – up from about 7.2 billion today – and global GDP will have more than doubled. As a result, we see global energy demand rising by about 25 percent from 2014 to 2040. In order to meet this demand, we believe all economic energy sources, including our existing hydrocarbon reserves, will be needed. We also believe that the transition of the global energy system to lower-emissions sources will take many decades due to its enormous scale, capital intensity and complexity. As such, we believe that none of our proven hydrocarbon reserves are, or will become, stranded.
>
> ExxonMobil's long-range annual forecast, *The Outlook for Energy*, examines energy supply and demand trends for approximately 100 countries, 15 demand sectors and 20 different energy types. The *Outlook* forms the foundation for the company's business strategies and helps guide our investment decisions. In response to projected increases in global fuel and electricity demand, our 2016 *Outlook* estimates that global energy-related CO_2 emissions will peak around 2030 and then begin to decline. A host of trends contribute to this downturn – including slowing population growth, maturing economies and a shift to cleaner fuels like natural gas and renewables – some voluntary and some the result of policy.
>
> ExxonMobil addresses the potential for future climate change policy, including the potential for restrictions on emissions, by estimating a proxy cost of carbon. This cost, which in some geographies may approach $80 per ton by 2040, has been included in our Outlook for several years. This approach seeks to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels. We believe our view on the potential for future policy action is realistic and by no means represents a "business-as-usual" case. We require all of our business lines to include, where appropriate, an

estimate of greenhouse gas-related emissions costs in their economics when seeking funding for capital investments.

> We evaluate potential investments and projects using a wide range of economic conditions and commodity prices. We apply prudent and substantial margins in our planning assumptions to help ensure competitive returns over a wide range of market conditions. We also financially stress test our investment opportunities, which provides an added margin against uncertainties, such as those related to technology development, costs, geopolitics, availability of required materials, services and labor. Stress testing further enables us to consider a wide range of market environments in our planning and investment process.

294. Defendants' statements in ¶293 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, as detailed above, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, in direct contrast to the above statements, Exxon actually used ***no proxy costs at all*** for certain of its projects, including – from at least "the fall of 2015" on – the Canadian Bitumen Operations, and the Company failed to incorporate carbon proxy costs into ***any*** of its asset impairment determination processes for 2015. *See* ¶¶142-147, *supra*. Based on the foregoing, the statements described in ¶293 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

295. On April 13, 2016, Defendants filed a notice of Exxon's annual shareholder meeting and proxy statement with the SEC. The notice recommended that shareholders vote against a number of climate change-related proposals, stating, among other things:

> ExxonMobil published the report, *Energy and Carbon – Managing the Risks*, to address questions raised on the topic of global energy demand and supply, climate

change policy and carbon asset risks. This report further described how the Company integrates consideration of climate change risks into planning processes and investment evaluation. The Board is confident that the Company's robust planning and investment processes adequately contemplate and address climate change related risks.

Each year, we update our long-term energy demand projection in our *Outlook for Energy* – taking into account the most up-to-date demographic, economic, technological, and climate policy information available. This analysis serves as a foundation for our long-term business strategies and investments, and is generally consistent with other forecasting organizations such as the International Energy Agency. Our *Outlook* by no means represents a "business as usual" case and it includes a significant reduction in projected energy use and greenhouse gas (GHG) emissions due to energy efficiency initiatives. Because we assume policy action will become increasingly more stringent over time, our *Outlook* projects lower future energy-related CO_2 emissions through 2040 than would be implied by a "no policy scenario" where limited GHG reduction policies and regulations are implemented.

* * *

Projects are evaluated under a wide range of possible economic conditions and commodity prices that are reasonably likely to occur. The Company does not publish the economic bases upon which we evaluate investments due to competitive considerations; however, it applies prudent and substantial safety margins in our planning assumptions to help ensure robust returns.

* * *

The Company addresses the potential for future climate-related policy, including the potential for restriction on emissions, through the use of a proxy cost of carbon. The proxy cost seeks to reasonably reflect the types of actions and policies that governments may take over the outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels. This proxy cost of carbon is embedded in our Outlook for Energy, and has been a feature of the report since 2007. All business segments are required to include, where appropriate, an estimate of the costs associated with greenhouse gas emissions in their economics when seeking funding for capital investments.

296. In addition, the notice described in ¶295 above also stated that the Board of Directors was "confident that the Company's robust planning and investment processes adequately contemplate and address climate change related risks, ensuring the viability of its assets," and believed that "none of our proven hydrocarbon reserves are, or will become, stranded."

297. Defendants' statements in ¶¶295-296 were false and misleading when made for the same reasons as those set forth in ¶294, *supra*.

298. On April 29, 2016, Defendants issued Exxon's first quarter 2016 earnings press release. Included in that release was the following "Estimated Key Financial and Operating Data":

Exxon Mobil Corporation
First Quarter 2015
(millions of dollars, unless noted)

	First Quarter	
	2015	2014
Earnings / Earnings Per Share		
Total revenues and other income	**67,618**	106,325
Total costs and other deductions	**60,983**	91,098
Income before income taxes	**6,635**	15,227
Income taxes	**1,560**	5,857
Net income including noncontrolling interests	**5,075**	9,370
Net income attributable to noncontrolling interests	**135**	270
Net income attributable to ExxonMobil (U.S. GAAP)	**4,940**	9,100
Earnings per common share (dollars)	**1.17**	2.10

299. Defendants' statements in ¶298 above were false and misleading when made, because Defendants failed to properly record the significant asset impairment charge concerning Exxon's Rocky Mountain dry gas operations, which the Company was required to record pursuant to ASC 360-10. *See* §V.B.6, *infra*.

300. On April 29, 2016, Exxon held a conference call with investors and analysts to discuss the Company's earnings and operations. During the conference call, Defendant Woodbury engaged in the following exchange with a stock analyst:

> [Paul Sankey, analyst from Wolfe Research:] Okay, Jeff, because of time constraints, I'll jump into another one. You again, mentioned return on capital employed. I really struggle with you losing money in the upstream on an earnings basis, particularly in the U.S., and how you reconcile that with the measure of the return of capital employed. Typically we don't look at that, we look at the cash flow

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> measure. Can you help us with the DD&A upstream particularly in the U.S. so we can get to the cash returns that you're making as opposed to these losses upstream?
>
> [Woodbury:] We've got a very strong portfolio in the upstream, and remember that we invest with a long-term view that's informed by our long-term energy demand outlook. All of our assets were managed to maximize returns through the life cycle with the objective of maintaining positive cash flow in low price environments. We'll continue to focus on those things that we control, cost, reliability, operational integrity.
>
> Importantly, we'll invest in attractive opportunities throughout the cycle that further enhance the asset profitability, and we see significant value in our assets, so, yes, there is a low price. We're in a low price period like we've been in the past. As I've said, we've really designed these assets to be very durable during a low price environment.
>
> They continue to generate – our producing assets continue to generate cash flow, and over the long-term we will continue to demonstrate, industry leading returns on capital employed.

301. Defendant Woodbury's statements described in ¶300 above were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(e), *supra*. Specifically, for the same reasons as detailed above, by failing to disclose the omitted information described in ¶247(a)-(b), Defendants materially misled investors with regard to the efforts that Defendants had undertaken – and were undertaking – to evaluate and account for the potential impact that climate change-related risks might have on Exxon's reserve assets and long-term business prospects. *See* ¶¶138-147, *supra*. In addition, the statements described in ¶300 above were materially misleading to investors because they failed to disclose that the Canadian Bitumen Operations were operating at a loss from at least mid-November 2015 through mid-April 2016, that the Kearl Operation was unlikely to satisfy the SEC definition for proved reserves at year-end 2016, and that a significant portion of Exxon's Rocky Mountain dry gas operations were impaired. *See* §IV.G., *supra*.

302. On May 12, 2016, Exxon held its annual executive compensation conference call where several climate-related shareholder proposals were addressed. The Board of Directors

recommended voting against these proposals. During the call, Defendant Woodbury stated, in part, as follows:

> To address questions raised on the topics of global energy demand and supply, climate change policy and carbon asset risk, the Company previously published a comprehensive report entitled, Energy and Carbon – Managing the Risks. I'll also highlight that our outlook for energy which details our forward assessment of energy demand and supply, is updated annually and considers many key demand-based variables, including the most up-to-date climate policy information available.
>
> Both of these documents, which are available on our website, provide to the shareholders an important insight into the merits of our business model and the rigor that underpins our investment plans to create shareholder value. . . .
>
> So in this regard we address the potential for future climate-related policy, including the expectation that future government policies to reduce greenhouse gas emissions will become more restrictive by using a proxy cost of carbon which has been embedded in our outlook since 2007. These factors have positioned Exxon Mobil consistently as an industry leader in return on capital employed, being unrelenting in our commitment to shareholder value.
>
> * * *
>
> Finally, I'll note that our annual outlook for energy includes a significant reduction in projected energy use and greenhouse gas emissions, due to the efficiency initiatives and continuing policy action. In short, our outlook by no means represents a business as usual case and is generally consistent with other forecasting organizations such as the International Energy Agency. . . .
>
> . . . I mentioned earlier that the Company previously published the report, Energy and Carbon – Managing the Risks. This report demonstrates the Board's focus on the importance of assessing the resiliency of the Company's resource portfolio. . . .
>
> The Board believes that The Company's current processes sufficiently test its portfolio to ensure long-term shareholder value. Framed by the report I just mentioned, and assessed annually through stress testing and our outlook for energy and in investment planning, we remain confident in the commercial viability of our portfolio. It should also be noted that all of our proved reserves fully comply with SEC definitions and requirements, as detailed in our annual 10-K filing.
>
> It is also important to note that our outlook is consistent with other forecasting organizations, such as the International Energy Agency, as well as the commitments made under the Paris agreement. In other words, the aggregation of intended nationally determined contributions, which were submitted by governments

> as part of the Paris agreement, indicates a greenhouse gas trajectory similar to that anticipated in our outlook.
>
> Further, the outlook includes an expectation that future government policies to reduce greenhouse gas emissions will become increasingly stringent over time and has used a proxy cost of carbon to assess investments since 2007.

303. Defendant Woodbury's statements in ¶302 were false and misleading when made for the same reasons as those set forth in ¶294, *supra*.

304. At the Annual Shareholders Meeting held on May 25, 2016, Defendant Tillerson stated, among other things, that:

> [E]very year, Exxon Mobil shares its long-term view of global energy demand and supply, which guides our company's business strategies and our investments, and we publish that as our outlook for energy. This document confirms the wisdom of these investments and help provide the world with reliable and affordable energy necessary to advance economic prosperity and improve living standards well into the future.

305. In addition, Defendant Tillerson also stated, in part, at the May 25, 2016 Annual Shareholders Meeting:

> We have, unlike many of our competitors, we have for many years included a price of carbon in our outlook. And that price of carbon gets put into all of our economic models when we make investment decisions as well.
>
> It's a proxy. We don't know how else to model what future policy impacts might be. But whatever policies are, ultimately they come back to either your revenues or your cost. So we choose to put it in as a cost.
>
> So we have accommodated that uncertainty in the future, and everything gets tested against it.

306. Defendant Tillerson's statements in ¶¶304-305 were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(b), *supra*. Specifically, as detailed above, until at least June 2014, Exxon's internal policies actually prescribed the use of a separate, undisclosed set of proxy costs that were ***significantly lower*** than those the Company had publicly represented that it used in connection with its investment and asset valuation processes. *See* ¶¶138-141, *supra*. By failing to disclose the Company's use of this

separate, lower set of proxy costs, the above statements were materially misleading to investors. In addition, in direct contrast to Defendant Tillerson's statements, Exxon actually used ***no proxy costs at all*** for certain of its projects, including – from at least "the fall of 2015" on – the Canadian Bitumen Operations, and the Company failed to incorporate carbon proxy costs into ***any*** of its asset impairment determination processes for 2015. *See* ¶¶142-147, *supra*. Based on the foregoing, the statements described in ¶¶304-305 above provided investors with a materially misleading description of Defendants' efforts to evaluate and account for the potential climate change-related risks associated with Exxon's reserve assets and long-term business prospects.

307. On July 29, 2016, Defendants issued Exxon's second quarter 2016 earnings press release. Included in that release was the following "Estimated Key Financial and Operating Data":

Exxon Mobil
Second Quarter
(millions of dollars, unless noted)

	Second Quarter		**First Half**	
	2016	2015	**2016**	2015
Earnings / Earnings Per Share				
Total revenues and other income	**57,694**	74,113	**106,401**	141,731
Total costs and other deductions	**55,298**	67,159	**102,275**	128,142
Income before income taxes	**2,396**	6,954	**4,126**	13,589
Income taxes	**715**	2,692	**664**	4,252
Net income including noncontrolling interests	**1,681**	4,262	**3,462**	9,337
Net income attributable to noncontrolling interests	**(19)**	72	**(48)**	207
Net income attributable to ExxonMobil (U.S. GAAP)	**1,700**	4,190	**3,510**	9,130
Earnings per common share (dollars)	**0.41**	1.00	**0.84**	2.17

308. Defendants' statements in ¶307 above were false and misleading when made, because Defendants failed to properly record the significant asset impairment charge concerning Exxon's Rocky Mountain dry gas operations, which the Company was required to record pursuant to ASC 360-10. *See* §V.B.6., *infra*.

309. As noted *supra*, on October 28, 2016, Defendants issued a news release announcing Exxon's financial results for the quarter ended September 30, 2016. Among other things, the release stated in part:

> If the average prices seen during the first nine months of 2016 persist for the remainder of the year, under the SEC definition of proved reserves, certain quantities of oil, such as those associated with the Kearl oil sands operations in Canada, will not qualify as proved reserves at year-end 2016. In addition, if these average prices persist, the projected end-of-field-life for estimating reserves will accelerate for certain liquids and natural gas operations in North America, resulting in a reduction of proved reserves at year-end 2016. Quantities that could be required to be de-booked as proved reserves on an SEC basis amount to approximately 3.6 billion barrels of bitumen at Kearl, and about 1 billion oil-equivalent barrels in other North America operations. Among the factors that would result in these reserves being re-booked as proved reserves at some point in the future are a recovery in average price levels, a further decline in costs, and / or operating efficiencies. Under the terms of certain contractual arrangements or government royalty regimes, lower prices can also increase proved reserves attributable to ExxonMobil. We do not expect the de-booking of reported proved reserves under SEC definitions to affect the operation of the underlying projects or to alter our outlook for future production volumes.

310. Defendants' statements in ¶309 were false and misleading when made, because Defendants failed to disclose the truth about the omitted information described in ¶247(a) and (d), *supra*. Specifically, as detailed *supra*, at the time Defendants made the statement described in ¶247 above, they knew it was a ***virtual certainty*** that the Kearl Operation would not satisfy the SEC definition for proved reserves at year-end 2016, ***even if prices increased significantly***. *See* ¶¶175-184, *supra*. In fact, at the time, the year-to-date average WCS price was just $27.88, and Defendants knew that the Kearl Operation would only satisfy the SEC definition for proved reserves at year-end 2016 if the average WCS price over the final two months of the year was ***$74.27*** – or nearly ***triple*** the year-to-date average. *See id.*; *see also* Wright Decl., ¶¶68, 71. In addition, Defendants also failed to disclose that, since at least "the fall of 2015," Exxon had not been not applying ***any carbon proxy costs at all*** to the Canadian Bitumen Operations. *See* ¶¶142-144, *supra*. As such, Defendants'

belated disclosure regarding the possibility that the Kearl Operation might need to be de-booked at year-end was materially misleading to investors.

311. Also included in the October 28, 2016 news release was the following "Estimated Key Financial and Operating Data":

Exxon Mobil Corporation
Third Quarter 2016
(millions of dollars, unless noted)

	Third Quarter		Nine Months	
	2016	2015	**2016**	2015
Earnings / Earnings Per Share				
Total revenues and other income	**58,677**	67,344	**165,078**	209,075
Total costs and other deductions	**55,451**	61,595	**157,726**	189,737
Income before income taxes	**3,226**	5,749	**7,352**	19,338
Income taxes	**337**	1,365	**1,001**	5,617
Net income including noncontrolling interests	**2,889**	4,384	**6,351**	13,721
Net income attributable to noncontrolling interests	**239**	144	**191**	351
Net income attributable to ExxonMobil (U.S. GAAP)	**2,650**	4,240	**6,160**	13,370
Earnings per common share (dollars)	**0.63**	1.01	**1.47**	3.18

312. Defendants' statements in ¶311 above were false and misleading when made, because Defendants failed to properly record the significant asset impairment charge concerning Exxon's Rocky Mountain dry gas operations, which the Company was required to record pursuant to ASC 360-10. *See* §V.B.6, *infra*.

313. Also on October 28, 2016, Exxon held its third quarter earnings call, during which Defendant Woodbury stated, in part:

> Our results are in accordance with the rules and standards of SEC and the Financial Accounting Standards Board. Starting with our oil and gas crude reserves.
>
> As I indicated, our reporting is consistent with SEC rules, which prescribe technical standards as well as a pricing basis for calculation of reported reserves. This pricing basis is a historical 12-month average of first day of the month prices in a given year.

> As such, the low price environment impacted our 2015 reserves replacement, resulting in its 67% replacement ratio. This was the net result of natural gas reserves being reduced by 834 million oil crude and barrel, primarily in the US, reflecting the change in natural gas prices, offset by liquid additions of 1.9 billion barrels. Given that year-to-date crude prices are down further from 2015 by almost 25% on the SEC pricing basis, we anticipate that certain quantities of currently booked reserves, such as those associated with our Canadian oil sands, will not qualify as crude reserves at year-end 2016.
>
> In addition, if these price levels persist, reserves associated with end-of-field life production for certain other liquids and natural gas operations in North America also may not qualify. However, as you know, amounts required to be debooked on an SEC basis are subject to being rebooked in the future when price levels recover, or when future operating or cost efficiencies are implemented. We do not expect the debooking of reported reserves under the SEC definitions to affect operations of these assets, or to alter our outlook for future production volumes. And you can find further details of our reserves reporting in our 2015 10-K.
>
> Now regarding asset impairments. We follow US GAAP successful efforts, and under this standard assessments are made using crude and natural gas price outlooks consistent with those that Management uses to evaluate investment opportunities. This is different than the SEC price basis for reserves that I just described.
>
> As detailed in our 2015 10-K, last year, we undertook an effort to assess our major long-life assets most at risk for potential impact. The price basis used in this assessment was generally consistent with long-term price forecasts published by third-party industry and government experts. The results of this analysis indicated that the future undiscounted cash flows associated with these assets exceeded their carrying value. Again, this is detailed in our 2015 10-K.
>
> In light of continued weakness in the upstream industry environment and in connection with our annual planning and budgeting process, we will again perform an assessment of our major long-life assets. Similar to the exercise undertaken in 2015. We will complete this assessment in the fourth quarter, and report any impacts in our year-end financial statements.

314. Defendant Woodbury's statements in ¶313 were false and misleading when made, because they failed to disclose the truth about the omitted information described in ¶247(a)-(b), (d)-(e). Specifically, Defendant Woodbury's statements concerning Exxon's proved reserves were false and misleading for the same reasons described in ¶310, *supra*. In addition, Defendant Woodbury's statements concerning "asset impairments" were false and misleading because they failed to disclose that Exxon did not incorporate carbon proxy costs into any of its asset impairment determination

processes for 2015, and also because they failed to disclose that a significant portion of Exxon's Rocky Mountain dry gas operations were impaired by at least year-end 2015. *See* ¶¶145-147, 185-194, *supra*; Wright Decl., ¶¶87-107.

315. On November 3, 2016, Defendants filed with the SEC Exxon's Form 10-Q for the third quarter of 2016. The Form 10-Q was signed by Defendant Rosenthal. The Form 10-Q also included SEC Certifications signed by Defendants Tillerson, Swiger and Rosenthal, which contained virtually identical information to that described in ¶255¸ *supra*, which was false and misleading for the reasons described in ¶256, *supra*. In addition, the Form 10-Q also repeated the statements from the Company's October 28, 2016 news release set forth in ¶309 above. Those statements were false and misleading for the same reasons described in ¶310, *supra*.

316. In addition, the Form 10-Q also stated, in part:

> In light of continued weakness in the upstream industry environment during 2016, and as part of its annual planning and budgeting process which is currently in progress, the Corporation will perform an assessment of its major long-lived assets, similar to the exercise undertaken in late 2015, including North America natural gas assets and certain other assets across the remainder of its operations. The assessment will reflect crude and natural gas price outlooks consistent with those that management uses to evaluate investment opportunities and generally consistent with the long-term price forecasts published by third-party industry and government experts. Development of future undiscounted cash flow estimates requires significant management judgment, particularly in cases where an asset's life is expected to extend decades into the future. An asset group would be impaired if its estimated undiscounted cash flows were less than the asset's carrying value, and impairment would be measured by the amount by which the carrying value exceeds fair value. The Corporation will complete its asset recoverability assessment and analyze the conclusions of that assessment in connection with the preparation and review of the Corporation's year-end financial statements for inclusion in its 2016 Form 10-K. Until these activities are complete, it is not practicable to reasonably estimate the existence or range of potential future impairments related to the Corporation's long-lived assets.

317. Defendants' statements in ¶316 were false and misleading when made, because they failed to disclose that Exxon did not incorporate carbon proxy costs into any of its asset impairment determination processes for 2015, and also because they failed to disclose that a significant portion of

Exxon's Rocky Mountain dry gas operations were impaired by at least year-end 2015. *See* ¶¶145-147, 185-194, *supra*; Wright Decl., ¶¶87-107.

B. Defendants' Violations of GAAP and SEC Accounting and Disclosure Rules

318. The SEC requires that publicly traded companies file quarterly and annual financial statements prepared in accordance with GAAP.[42] Exxon, in violation of GAAP and SEC rules, materially misstated its publicly issued financial statements as detailed herein during the Class Period, by:

(i) Failing to disclose that its Canadian Bitumen Operations were operating at a loss, in violation of ASC 275 and SEC Regulation S-K Item 303;

(ii) Failing to disclose that its Kearl Operation would not satisfy the SEC definition for proved reserves at year-end 2016, absent an extraordinary – and, by Exxon's own subsidiary's estimates, unexpected – rise in the price of oil, in violation of ASC 275, ASC 932 and SEC Regulation S-K Item 303;

(iii) Failing to disclose that, contrary to public representations, carbon or GHG proxy costs were not incorporated into Exxon's investment and asset valuation processes in violation of ASC 275, and Statement of Financial Accounting Concepts ("SFAC") No. 8;

(iv) Failing to incorporate GHG or carbon proxy costs into its asset impairment and proved reserves testing and evaluation processes, in violation of ASC 360, ASC 932, and SEC Regulation S-X Rule 4-10; and

[42] GAAP comprises the standards recognized by the accounting profession as the conventions, rules and procedures necessary to define accepted accounting practices. The SEC has the statutory authority for the promulgation of GAAP for public companies and has generally delegated that authority to the Financial Accounting Standards Board (FASB). The FASB's promulgated standards are generally contained within the FASB Accounting Standards Codification ("ASC"), which are considered to be the highest standards of GAAP. SEC Regulation S-X, 17 C.F.R. §210.4-01(a)(1), provides that financial statements filed with the SEC that are not presented in conformity with GAAP will be presumed to be misleading, despite footnotes or other disclosures.

(v) Failing to record an asset impairment charge for its Rocky Mountain dry gas assets no later than the accounting period ending December 31, 2015, in violation of ASC 360-10-35.

319. The allegations in this section are supported by the facts alleged throughout this complaint, as well as the analysis set forth in the Wright Declaration.[43]

1. Relevant GAAP and SEC Provisions

a. Materiality of Misstatements and Omissions: SEC Staff Accounting Bulletin No. 99 – Materiality

320. SEC Staff Accounting Bulletin No. 99 – Materiality ("SAB 99") sets forth the generally accepted methods to evaluate materiality in relation to the financial statements of SEC registrants. Among other things, SAB 99 states that: "***The omission or misstatement of an item in a financial report is material if, in the light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item***."

321. SAB 99 also states that both "quantitative" and "qualitative" factors must be considered in assessing materiality:

> Evaluation of materiality requires a registrant and its auditor to consider all the relevant circumstances, and ***the staff believes that there are numerous circumstances in which misstatements below 5% could well be material. Qualitative factors may cause misstatements of quantitatively small amounts to be material***; as stated in the auditing literature.

322. SAB 99 considerations that may well render material a quantitatively small misstatement of a financial statement item include, but are not limited to:

- Whether the misstatement masks a change in earnings or other trends.

[43] As detailed in Dr. Wright's curriculum vitae, a copy of which is attached as Ex. 1 to the Wright Declaration, Dr. Wright is an accomplished oil and gas accounting expert with 35 years of experience in the areas of oil and gas accounting and economic analysis. Wright Decl., Ex. 1.

- Whether the misstatement hides a failure to meet analysts' consensus expectations for the enterprise.
- Whether the misstatement changes a loss into income or vice versa.
- Whether the misstatement concerns a segment or other portion of the registrant's business that has been identified as playing a significant role in the registrant's operations or profitability.

323. The SEC staff also believes that even a small misstatement, ***if intentional***, supports the inference that the misstatement is material:

> For the reasons noted above, the staff believes that a registrant and the auditors of its financial statements should not assume that even small intentional misstatements in financial statements, for example those pursuant to actions to "manage" earnings, are immaterial. ***While the intent of management does not render a misstatement material, it may provide significant evidence of materiality.***
>
> ***The evidence may be particularly compelling where management has intentionally misstated items in the financial statements to "manage" reported earnings. In that instance, it presumably has done so believing that the resulting amounts and trends would be significant to users of the registrant's financial statements. The staff believes that investors generally would regard as significant a management practice to over- or under-state earnings up to an amount just short of a percentage threshold in order to "manage" earnings. Investors presumably also would regard as significant an accounting practice that, in essence, rendered all earnings figures subject to a management-directed margin of misstatement***.

SAB 99 (footnote omitted).

324. Finally, SAB 99 states that materiality may turn on whether a misstatement of even a relatively small business segment is likely to be material if management represents that the particular segment is important to future profitability:

> The materiality of a misstatement may turn on where it appears in the financial statements. For example, a misstatement may involve a segment of the registrant's operations. In that instance, in assessing materiality of a misstatement to the financial statements taken as a whole, registrants and their auditors should consider not only the size of the misstatement but also the significance of the segment information to the financial statements taken as a whole. "***A misstatement of the revenue and operating profit of a relatively small segment that is represented by management to be important to the future profitability of the entity" is more likely to be material to investors than a misstatement in a segment that management has not identified as especially important***.

(Footnotes omitted.)

b. ASC 360-10-35, *Impairment or Disposal of Long-Lived Assets*

325. ASC 360-10-20 explains that "[i]mpairment is the condition that exists when the carrying amount of a long-lived asset or asset group exceeds its fair value." The "carrying amount" is the original cost of an asset, less the accumulated amount of any depreciation or amortization. ASC 360-10-35, *Impairment or Disposal of Long-Lived Assets*, provides the accounting guidance regarding asset impairments for companies like Exxon following the successful efforts method of accounting, and requires that the carrying amount of long-lived assets, such as the capitalized costs of acquiring, successful exploration and development of oil and gas, "***shall*** be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount ***may*** not be recoverable." Events and circumstances that are considered potential impairment indicators are frequently referred to as "trigger events," as they indicate the necessity that an accounting impairment test be performed.

(1) Trigger Events

326. ASC 360-10-35-21 provides examples of possible impairment indicators (triggers). These examples of such events or changes in circumstances include, but are not limited to:

(i) A significant decrease in the market price of a long-lived asset (asset group);

(ii) A significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition; and

(iii) A significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a regulator.

327. In addition, pages 322 to 323 of Petroleum Accounting 7th ed. – an accounting text authored by current and former audit partners from Exxon's outside audit firm, PwC – identifies oil and gas industry-specific impairment triggers, including:

(i) Lower expected future oil and gas prices (such as the prices used by management in evaluating whether to develop or acquire properties);

(ii) Actual or expected future development or operating costs are significantly more than previously anticipated for a group of properties (*s*, significant AFE overruns or higher oil field or other service costs with no significant upward revisions in reserve estimates); and

(iii) Significant adverse change in legislative or regulatory climate.

(2) Impairment Testing and Loss Recognition

328. If trigger events are present, a company must then perform the second step, a "recoverability test," which requires the company to determine if the carrying value is recoverable by estimating whether the undiscounted net cash flows of each property being examined (*e.g.*, the specific oil and gas fields and related support facilities) exceed the carrying value of those assets. If the sum of these future undiscounted net cash flows from the expected use and eventual disposition of the asset fail to exceed the carrying value of the asset on the company's books, the asset is considered to be impaired and an impairment loss must be recorded.

329. According to ASC 360-10-35-17, impairment losses are measured as the amount by which the carrying amount of a long-lived asset or asset group exceeds its fair value. Impairment is recorded as an impairment loss that results in a reduction to the capitalized cost of the asset or asset group and a reduction in net income for the period in which the impairment was determined.

330. In applying the recoverability test, the cash flow estimates are to include all available evidence including the entity's own assumptions about the use of the asset:

> Estimates of future cash flows used to test the recoverability of a long-lived asset (asset group) shall incorporate the entity's own assumptions about its use of the asset (asset group) and shall consider all available evidence. The assumptions used in developing those estimates shall be reasonable in relation to the assumptions used in developing other information used by the entity for comparable periods, such as internal budgets and projections, accruals related to incentive compensation plans, or information communicated to others.

ASC 360-10-35-30.

c. Proved Reserve Accounting Overview: ASC 932, *Extractive Industries: Oil and Gas* and SEC Regulation S-X Rule 4-10

331. ASC 932 *Extractive Industries: Oil and Gas* is a codification of all FASB accounting and disclosure requirements specifically addressing accounting and disclosures mandated for companies engaged in oil and gas producing activities. ASC 932 is aligned with the SEC's rules for accounting using the successful efforts method and for disclosure of information relating to oil and gas producing activities as set forth in SEC Regulation S-X Rule 4-10. The SEC defines proved oil and gas reserves in Regulation S-X Rule 4-10(a)(22):

> Proved oil and gas reserves. Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible-from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations-prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

332. One of the most critical aspects in the above definition of proved reserves is, in order to qualify as such, the quantities of oil and gas reserves must be economically producible under current economic conditions, *i.e.*, conditions existing as of the financial statement date. ASC 932-10-20 defines "economically producible" as meaning that production of a resource is expected to generate revenue that exceeds, or is reasonably expected to exceed, the costs of the operation.

333. In order to determine whether specific reserves meet the SEC's test for economic producibility under existing economic conditions (and thus meet the definition of proved reserves), registrants are required to consider both historical prices and current costs. SEC Regulation S-X Rule 4-10(a)(22)(v) indicates that sales prices to be used in assessing existing economic conditions is the arithmetic average of the first-day-of-the-month prices achieved for the prior 12 months, unless future sales price commitments are defined by contractual arrangements. The first-day-of-the-month prices

should be adjusted to reflect the conditions and situations specifically affecting all reserves and resources.

334. In order to continue to be classified as proved reserves, such reserves must continue to meet the definition of proved reserves. If subsequent evaluations result in the determination that previously classified proved reserves no longer qualify as being economically producible, those reserves are no longer proved reserves and must be "de-booked" (*i.e.*, reclassified from proved to unproved). The SEC rules require disclosure of revisions of previously estimated quantities of proved reserves. De-booking of proved reserves appears as a downward or negative revision to the beginning of the year proved reserves quantities reported in the SEC Regulation S-X Rule 4-10 mandated proved reserves disclosures that appear in the financial statements.

335. While formal reserve reports are not a mandated component of interim reports (such as Form 10-Q reports), when adverse events that significantly affect proved reserve quantities occur, disclosure regarding such revisions must be included in interim reports. According to ASC 932-270-50-1:

> The disclosures set forth in Subtopic 932-235 are not required in interim financial reports. However, interim financial reports shall include information about a major discovery or other favorable or adverse event that causes a significant change from the information presented in the most recent annual financial report concerning oil and gas reserve quantities.

d. ASC 275 – *Risks and Uncertainties*

336. Estimates are inherent in financial statement preparation. Accordingly, ASC 275 requires that management provide discussion about the risks and uncertainties inherent in significant estimates when it is "reasonably possible" that the estimate will change materially in the next year. If management knows by the time the financial statements are issued, that a reasonable possibility exists that a significant estimate or estimates underpinning the recognition or measurement of element(s) of

the financial statements is likely to change in the next 12 months and the effect of such change will be material, management is required to make a complete and fulsome disclosure of all the relevant facts.

337. Furthermore, ASC 275 requires that this disclosure be more than just a general statement, but rather indicates that it must include an estimate of the effect of a change in a condition, situation, or set of circumstances that existed at the date of the financial statements and an indication that it is at least reasonably possible that a change in the estimate will occur in the near term. The disclosures required as a consequence of changes in certain significant estimates are described in ASC 275-10-50-6:

> **Certain Significant Estimates**:
>
> This Subtopic requires discussion of estimates when, based on known information available before the financial statements are issued or are available to be issued (as discussed in Section 855-10-25), it is reasonably possible that the estimate will change in the near term and the effect of the change will be material. The estimate of the effect of a change in a condition, situation, or set of circumstances that existed at the date of the financial statements shall be disclosed and the evaluation shall be based on known information available before the financial statements are issued or are available to be issued (as discussed in Section 855-10-25).

338. Notably, the "reasonably possible" threshold for such required disclosure is relatively low. ASC 275-10-20 defines "reasonably possible" as merely "[t]he chance of the future event or events occurring is more than remote but less than likely."

339. In addition, the American Institute of CPAs ("AICPA") published *Audit & Accounting Guide: Entities With Oil and Gas Producing Activities* (AICPA 2014) for the express purpose of assisting management in preparing financial statements in conformity with GAAP and to assisting practitioners in performing and reporting their audit engagements. In ¶8.162, the AICPA identifies risks and uncertainties of special significance to accurate reporting of oil and gas reserves and their effect of estimates of future cash flows:

> FASB ASC 275, Risks and Uncertainties, and paragraphs 50-54 of FASB ASC 360-10-55 require disclosure of significant estimates and concentrations. The

> auditor should evaluate the appropriateness of the entity's disclosures related to significant concentrations and estimates. Significant estimates prevalent in the oil and gas industry include, but are not limited to, the following: Proved oil and gas reserve and cash flow estimates, including DD&A, impairments and purchase price allocations, which are all affected by oil and gas reserve estimates.

e. SEC Regulation S-K Item 303 – Management's Discussion and Analysis

340. SEC Regulation S-K Item 303 ("Item 303") requires a discussion of results of operations and other information necessary to an understanding of a registrant's financial condition, changes in financial condition and results of operations. According to the SEC, "[t]his includes unusual or infrequent transactions, known trends or uncertainties that have had, or might reasonably be expected to have, a favorable or unfavorable material effect on revenue, operating income or net income and the relationship between revenue and the costs of the revenue."

341. The SEC describes the purpose of the MD&A requirements as "not complicated," stating that it is to "provide readers information 'necessary to an understanding of [a company's] financial condition, changes in financial condition and results of operations.'" Moreover, the SEC has stated that the MD&A requirements are intended to satisfy the following three principal objectives:

- provide a narrative explanation of a company's financial statements that enables investors to see the company through the eyes of management;
- enhance the overall financial disclosure and provide the context within which financial information should be analyzed; and
- provide information about the quality of, and potential variability of, a company's earnings and cash flow, so that investors can ascertain the likelihood that past performance is indicative of future performance.

2. Exxon Violated ASC 275 and SEC Regulation S-K Item 303 by Failing to Disclose that the Canadian Bitumen Operations Were Operating at a Loss

342. As detailed *supra*, the Canadian Bitumen Operations were operating at a loss from at least mid-November 2015 through mid-April 2016. *See* §V.6., *supra*; *see also* Wright Decl., ¶¶40-57.

343. Exxon, however, failed to disclose this fact in its 2015 Form 10-K, which was filed with the SEC on February 24, 2016. Instead, Exxon disclosed only that, during 2015, the average price received per barrel of bitumen produced from the Canadian Bitumen Operations was $25.07, and the average production cost per barrel of bitumen produced from the Canadian Bitumen Operations was $19.20, ***implying a per barrel profit of $5.87***. Because the Canadian Bitumen Operations had, in fact, been operating at a loss for more than three months at the time Exxon filed its 2015 Form 10-K, the Company's disclosure implying a $5.87/bbl profit was materially misleading and served to mask the start of a materially unfavorable trend concerning the Canadian Bitumen Operations.

344. Given the significant losses incurred by the Canadian Bitumen Operations beginning no later than mid-November 2015, it was at least "reasonably possible," as that phrase is defined by ASC 275, at the time Exxon filed its 2015 Form 10-K, that the Company's estimates of future profitability, price, and cost levels would change within the next 12 months and would have a materially negative impact on, among other things, Exxon's net profits and proved bitumen reserve levels, both of which are highly material metrics to investors and other market participants. *See* ¶¶97-99, 336, *supra*; *see also* Wright Decl., ¶57(a)-(b). Moreover, the significant losses incurred by the Canadian Bitumen Operations beginning no later than mid-November 2015 clearly represented a known trend or uncertainty that could reasonably be expected to have a material unfavorable impact on revenues or income from continuing operations, and was thus required to be disclosed pursuant to Item 303. *See* ¶340, *supra*; *see also* Wright Decl., ¶57(c)-(d).

345. As such, Exxon's failure to disclose in its 2015 Form 10-K that the Canadian Bitumen Operations were at that time losing money constituted a violation of both ASC 275 and Item 303. Wright Decl., ¶57.

346. Moreover, such violations were clearly material. First, the Canadian Bitumen Operations were an extremely important segment or portion of Exxon's business going forward and represented approximately 31% of Exxon's total liquids proved reserves and 18% of the Company's combined worldwide proved reserves. Accordingly, the fact that the Canadian Bitumen Operations had been operating a loss for at least three months would have been highly material to existing and potential investors, lenders, and other creditors in assessing the timing, amount and uncertainty of future net cash inflows to Exxon. Second, as noted above, Exxon's failure to disclose the Canadian Bitumen Operations' then-current operating loss masked the start of a materially unfavorable trend concerning Exxon's earnings. Third, as discussed at ¶¶98-99, 258, 268, *supra*, the Canadian Bitumen Operations were also an important segment of Exxon's operations due to their outsized contributions to the Company's reported reserve replacement ratio in 2014 and 2015, and as further evidenced by Defendant Woodbury's statements concerning Exxon's dependence on such operations for long-term production and cash flow stability. As noted *supra*, SAB 99 considers all of the factors described above to be significant considerations in the materiality analysis. *See* ¶322, *supra*; *see also* Wright Decl., ¶56.

3. Exxon Violated ASC 275, ASC 932 and Item 303 by Failing to Provide Adequate Disclosures Concerning the Likelihood that the Kearl Operation Would Not Qualify as Proved Reserves at Year-End 2016

347. As detailed *supra*, throughout 2016, Exxon knew that its Kearl Operation would not satisfy the SEC definition for proved reserves at yearend 2016, absent an extraordinary – and, by Exxon's own subsidiary's estimates, unexpected – rise in the price of oil. *See* ¶¶175-184 , *supra*; *see also* Wright Decl., ¶¶59-72.

348. Exxon, however, failed to adequately disclose its awareness of this fact in the Company's 2015 Form 10-K and 2016 Form 10-Q reports, which were filed on February 24, 2016,

May 4, 2016, August 3, 2016, and November 3, 2016, respectively. Instead, Exxon merely issued tepid warnings mentioning the possibility of de-bookings, while failing to inform investors of the true state of affairs – namely, that the de-booking of the Kearl Operation's proved reserves was all but guaranteed, absent an extraordinary and unexpected change in circumstances. *See* ¶¶175-184, *supra*; *see also* Wright Decl., ¶¶69-72. As such, Exxon's purported disclosures and other representations to investors were materially misleading.

349. As detailed *supra*, ASC 932 requires that, when adverse events cause significant downward estimates in proved reserves, the information must be conveyed to financial statement users at the earliest possible time. *See* ¶335, *supra*. Accordingly, by failing to adequately disclose Exxon's awareness about the virtually certain need to de-book the Kearl Operation's proved reserves by year-end 2016, Exxon's 2015 Form 10-K and 2016 Form 10-Q reports violated ASC 932. *See id*., *supra*; *see also* Wright Decl., ¶72(a)-(c).

350. In addition, based on the above information, Exxon clearly would have known at the time it filed its 2015 Form 10-K and 2016 Form 10-Q reports that the Company's estimates of proved reserves were likely to change within the next 12 months, and would have a materially negative impact on Exxon's worldwide proved reserve levels. As such, Exxon's failure to disclose such information in its 2015 Form 10-K and 2016 Form 10-Q reports constituted a violation of ASC 275. *See* ¶¶336-339, *supra*; *see also* Wright Decl., ¶72(d).

351. Moreover, as detailed *supra*, Item 303 requires comprehensive MD&A discussion and analyses of known trends or uncertainties that might reasonably be expected to have a material unfavorable effect on net income. *See* ¶340, *supra*. Given the facts detailed *supra*, Exxon clearly would have known at the time it filed its 2015 Form 10-K and 2016 Form 10-Q reports that the Company's estimates of the Kearl Operation's proved reserves were likely to negatively change within the next 12 months and that the change would have a materially negative impact on Exxon's

future earnings and assets. Thus, Exxon also violated Item 303 by failing to make more truthful and accurate disclosures concerning the likelihood that the Kearl project would not satisfy the SEC definition for "proved reserves" at year-end 2016. Wright Decl., ¶72(f)

352. Accordingly, Exxon's 2015 Form 10-K and 2016 Form 10-Q reports violated ASC 275, ASC 932 and Item 303, by failing to provide more detailed and truthful disclosures concerning the likelihood that the Kearl project would not satisfy the SEC definition for "proved reserve." Exxon's failure to disclose in its 2015 Form 10-K that the Canadian Bitumen Operations were at that time losing money constituted a violation of both ASC 275 and Item 303. Wright Decl., ¶57.

353. Moreover, as established *supra*, the Canadian Bitumen Operations proved reserve levels were material from both a quantitative and qualitative standpoint, as the reserves accounted for 31% of Exxon's total liquid proved reserves, accounted for an outsized contribution to Exxon's reserve replacement ratios in 2014 and 2015, and were expected to have a long-term stabilizing effect on Exxon's future petroleum production and cash flows. *See* ¶¶97-99, 258, 268, *supra*. Such facts also made the Canadian Bitumen Operations an important segment or portion of Exxon's business, as contemplated by SAB 99. *See* ¶322, *supra*.

4. Exxon Violated ASC 275 and SFAC No. 8 by Failing to Disclose that the Company Did Not Incorporate a Carbon "Proxy Cost" into Its Investment and Valuation Processes for the Canadian Bitumen Operations

354. As detailed *supra*, from at least "the fall of 2015" on, Exxon's investment and asset valuation processes for the Canadian Bitumen Operations were not consistent with the Company's public representations regarding its supposed use of a GHG "proxy cost" in connection with such processes. *See* ¶¶142-144, *supra*; *see also* Wright Decl., ¶¶73-78.

355. As also detailed *supra*, one of the most basic tenants of financial reporting and disclosure is that the information presented must be truthful. Indeed, SFAC No. 8 instructs that: "To

be useful, financial information not only must represent relevant phenomena, but it also must faithfully represent the phenomena that it purports to represent. To be a perfectly faithful representation, a depiction would have three characteristics. It would be complete, neutral, and free from error." SFAC No. 8 further states: "Free from error means there are no errors or omissions in the description of the phenomenon, and the process used to produce the reported information has been selected and applied with no errors in the process." By publicly indicating that a GHG "proxy cost" was incorporated into Exxon's estimate of current and future costs, when in fact the Company did not do so with regard to the Canadian Bitumen Operations, Exxon's 2015 Form 10-K and 2016 Form 10-Q reports were not representationally faithful, and therefore, violated fundamental FASB guidance from SFAC No. 8. *See* ¶¶128-136, 142-144, *supra*; *see also* Wright Decl., ¶81(a)-(c).

356. In addition, Exxon's failure to truthfully disclose that the Company did not incorporate a GHG "proxy cost" into Exxon's calculations concerning its investment and asset valuation processes for the Canadian Bitumen Operations violated ASC 275, as the Company's failure to include such costs in its calculation concerning the Canadian Bitumen Operations unquestionably had a material impact on the estimates used in connection with the evaluation of proved reserves and potential asset impairments concerning such assets. *See* ¶¶336-339, *supra*; *see also* Wright Decl., ¶81(d).

357. Based on the foregoing, Exxon's 2015 Form 10-K and 2016 Form 10-Q reports violated ASC 275 and fundamental FASB guidance from SFAC No. 8, by failing to disclose that, contrary to the Company's statements to investors, Exxon did not incorporate a GHG "proxy cost" into the Company's calculations concerning its investment and asset valuation processes for the Canadian Bitumen Operations.

358. Moreover, as established *supra*, the Canadian Bitumen Operations constituted a material segment or portion of Exxon's business. *See* ¶¶97-98, 258, 268, *supra*. Accordingly, the

Company's failure to alert investors that asset valuations concerning the Canadian Bitumen Operations did not take into account all the costs the Company had assured investors were included was also material.

5. Exxon Materially Misstated Its Financial Statements by Failing to Incorporate a Carbon "Proxy Cost" into the Company's Proved Reserves and Asset Impairment Calculations for the Canadian Bitumen Operations

359. As detailed *supra*, contrary to numerous representations Exxon made to investors, from at least "the fall of 2015" on, the Company did not apply its publicly stated GHG "proxy cost" to Exxon's investment and asset valuation processes concerning the Canadian Bitumen Operations. *See* §IV.E., *supra*; *see also* Wright Decl., ¶¶73-78. In addition, at least prior to 2016, Exxon made no attempt to incorporate a GHG proxy cost into any of its asset impairment-related calculations. *Id*.

360. Moreover, the costs associated with actual application of Exxon's publicly stated GHG "proxy cost" to its Canadian Bitumen Operations would have been significant, given that a $80/ton GHG "proxy cost" would have equated to an additional cost of approximately $5.70 (USD/bbl), and even just a $20/ton GHG "proxy cost" would have equated to an additional cost of approximately $1.43 (USD/bbl). *See* Wright Decl., ¶84. These numbers are particularly significant in light of the fact that the Kearl Operation was no more than $1.52 (USD/bbl) away from no longer qualifying as a proved reserve at year-end 2015, ***without*** the application of any GHG "proxy cost." *See* ¶¶175-184; Wright Decl., ¶84.

361. In addition, the material impact of Exxon's failure to incorporate its publicly stated GHG "proxy cost" into applicable accounting calculations concerning the Canadian Bitumen Operations is further confirmed by the sworn testimony of the Oleske Affirmation, which states that "according to evidence reviewed by [NYOAG], [actual application of Exxon's publicly stated GHG

proxy cost] may have rendered at least one of its major [Canadian] oil sands projects unprofitable over the life of the project." Oleske Affirmation, ¶29; *see also* Wright Decl., ¶85.

362. As noted above, in order to qualify as proved reserves, ASC 932-10-S99 and SEC in Regulation S-X Rule 4-10 require that the quantities of oil and gas reserves must be economically producible under current economic conditions. *See* ¶331-335, *supra*. Moreover, the proper determination of costs is integral to the determination of economic producibility. GHG "proxy costs" represent a current and future cost of exploring, developing and producing proved reserves. By failing to include GHG "proxy costs" in the future net cash flows for Exxon's Canadian Bitumen Operations, Defendants' analysis, at a minimum, understated the costs of producing proved reserves, overstated the future net cash inflows from producing proved oil and gas reserves, and thus, failed to properly account for the Company's proved reserve quantities in connection with the Canadian Bitumen Operations. Wright Decl., ¶86(a).

363. In addition, Exxon's failure to include the clearly material GHG "proxy costs" in the Company's investment and asset valuation processes affected numerous accounts and estimates in Exxon's financial statements, including, *inter alia*, operating costs, depreciation, depletion and amortization (DD&A), liabilities, impairment, asset retirement obligations and earnings. Wright Decl., ¶86(b).

364. As also noted *supra*, pursuant to ASC 360-10-35-30, Exxon was required to use all available evidence, including assumptions used in long-range budgeting and planning processes, when developing future cash flow estimates for impairment analysis. *See* ¶¶328-330, *supra*; *see also* Wright Decl., ¶86(c)-(e). Moreover, Exxon affirmatively represented to investors that it used GHG "proxy costs" in all of its "own assumptions about its use of the asset." ASC 360-10-35-30; *see also* ¶281, *supra*; Wright Decl., ¶86(f).

365. Based on the foregoing, each of Exxon's Form 10-K and Form 10-Q reports filed during the Class Period materially violated ASC 360, ASC 932 and SEC Regulation S-X Rule 4-10 requirements.

6. Exxon Violated ASC 360-10 by Failing to Record an Asset Impairment Charge in Connection with the Company's Rocky Mountain Dry Gas Operations by Year-End 2015

366. As detailed *supra*, by no later than year-end 2015, a significant portion of Exxon's Rocky Mountain dry gas operations no longer justified their applicable "carrying value" on Exxon's financial statements, thus warranting the recording of an asset impairment charge pursuant to ASC 360-10.

367. Specifically, as set forth *supra*, several red flags concerning Exxon's Rocky Mountain dry gas operations and the business climate it operated in were present at year-end 2015. *See* ¶¶185-194, *supra*. These adverse trends and negative business conditions constituted impairment triggers, as contemplated by ASC 360-10-35-21, thus requiring Exxon to test the Rocky Mountain dry gas operations at issue in the 2016 Dry Gas Impairment Charge for potential impairment by no later than the accounting period ending on December 31, 2015. *See id.*, *supra*; *see also* Wright Decl., ¶¶88-95.

368. Moreover, had Exxon properly conducted such a test at year-end 2015, it should have concluded that the carrying value of such assets was no longer recoverable, and that such assets were therefore subject to an asset impairment charge pursuant to ASC 360-10. *See* ¶¶185-194, *supra*; *see also* Wright Decl., ¶¶96-107.

369. This conclusion is supported by the Wright Declaration, which sets forth a detailed analysis comparing several key impairment-related factors at year-end 2016, to the same set of factors at year-end 2015, and also considers other qualitative factors, in reaching the conclusion that, "to the extent the Rocky Mountain dry gas operations at issue in the 2016 Dry Gas Impairment Charge were impaired pursuant to FASB ASC 360-10 at year-end 2016, as Exxon affirmatively

acknowledged in its 2016 Form 10-K, those same assets ***must*** have been impaired pursuant to FASB ASC 360-10 by no later than year-end 2015." Wright Decl., ¶¶96-101. The key impairment-related factors analyzed by Dr. Wright are also described in detail herein. *See* ¶¶185-194, *supra*.

370. Furthermore, as concluded by Dr. Wright, had the proper asset impairment charge been taken at year-end 2015, the charge would have been material to investors, given the size of the charge Exxon ultimately took at year-end 2016 ($3.3 billion pre-tax, $2.03 billion after-tax), as well as the fact that Exxon's failure to take an appropriate asset impairment charge at year-end 2015 allowed the Company to hide the fact that Exxon did not meet analysts' consensus EPS expectations for the Company's at year-end 2015. *See* Wright Decl., ¶¶102-103.

371. Moreover, the conclusion that the Rocky Mountain dry gas operations at issue in the 2016 Dry Gas Impairment Charge were impaired by no later than year-end 2015 is further bolstered by the fact that, as detailed in the Oleske Affirmation, prior to 2016, "Exxon failed to apply a proxy cost of GHGs in determining whether its long-lived assets, such as oil and gas reserves and resources, were impaired." Oleske Affirmation, ¶41; *see also* ¶¶145-147, *supra*. For the same reasons as set forth in ¶364, *supra*, Exxon was required to include the stated GHG "proxy costs" used for its internal business planning purposes in connection with the Company's asset impairment calculations for its Rocky Mountain dry gas operations. According to the Oleske Affirmation, and Ex. 5 attached thereto, by 2015, Exxon's internal policies would have required it to apply a $10 per ton proxy cost for emissions from its Rocky Mountain dry gas operations starting in 2018, which would then "ris[e] linearly" to $60 per ton in 2030. *See also* Wright Decl., ¶106

372. Had Exxon incorporated the GHG "proxy costs" described in ¶371 above into the asset impairment calculations for its Rocky Mountain dry gas operations prior to 2016, the impact upon such calculations would have been significant, and would have clearly rendered such assets impaired.

Indeed, using standard conversion rates of 117 pounds/MMBTU[44] and 2,200 pounds/ton (or, effectively, 0.05318 tons/MMBTU), a GHG "proxy cost" of $10/ton would result in the imposition of an additional cost of approximately $0.53/MMBTU, while a GHG "proxy cost" of $60/ton would result in the imposition of an additional cost of approximately $3.19/MMBTU. The unquestionable materiality and impact of such costs is further illustrated by considering that, as of December 31, 2015, the Henry Hub spot price for natural gas was only $2.28/MMBTU. Clearly, the application of future costs ranging from approximately 23% to ***140%*** of the current price would have materially reduced expected future cash flows from these assets and further confirmed their impairment, particularly in light of the other factors discussed above.

373. By failing to report a ASC 360-10 impairment charge for its Rocky Mountain dry gas operations prior to 2016, Exxon improperly and materially misstated certain line item amounts in the Company's 2015 Form 10-K financial statement sections titled "Consolidated Statement of Income" and "Disclosures about Segments and Related Information," as indicated by the table in ¶376, *infra*.

374. Additionally, each of Exxon's unaudited 2016 first, second and third quarter condensed consolidated financial statements filed on Form 10-Q with the SEC on May 4, 2016, August 3, 2016 and November 3, 2016, respectively, advised that:

> These unaudited condensed consolidated financial statements should be read in the context of the consolidated financial statements and notes thereto filed with the Securities and Exchange Commission in the Corporation's 2015 Annual Report on Form 10-K.

375. Moreover, in each of the unaudited 2016 Form 10-Q filings, Defendants falsely warranted that:

> In the opinion of the Corporation, the information furnished herein reflects all known accruals and adjustments necessary for a fair statement of the results for the periods reported herein.

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[44] *See* https://www.eia.gov/environment/emissions/co2_vol_mass.php.

376. In fact, Defendants continued to fail to record the required material ASC 360-10-35 impairment charge against income for Exxon's Rocky Mountain dry gas assets in each of the Company's successive 2016 Form 10-Q reports until Exxon ultimately recorded a $3.3 billion pre-tax impairment charge for those assets at year-end 2016. By failing to properly recognize the impairment expense beginning in its 2015 Form 10-K, and in each successive 2016 Form 10-Q, Defendants improperly and materially misstated Exxon's "Consolidated Statement of Income" and "Disclosures about Segments and Related Information" line items amounts, as indicated by the following table:

Line items misstated in Exxon's 2015 and 2016 Financial Statements file with the SEC					
Financial statement line item in 10-K and 10-Q	**Amounts as originally reported** *In billions, except per share amounts*				**Misstatement Type**
	10-K Year ended 12/31/15	10-Q Quarter ended 3/31/16	10-Q Quarter ended 6/30/16	10-Q Quarter ended 9/30/16	
Depreciation and Depletion Expense (if impairment reported as subtotal of this income statement line)	$18,048	$4,765	$4,821	$4,605	Understated
Net Income Attributable to Exxon	$16,150	$1,810	$1,700	$2,650	Overstated
Earnings Per Common Share	$3.85	$0.43	$0.41	$0.63	Overstated
Comprehensive Income Attributable to Exxon	$11,596	$4,937	$1,340	$2,928	Overstated

VI. ADDITIONAL ALLEGATIONS OF DEFENDANTS' SCIENTER

377. As detailed throughout this complaint, Defendants engaged in an elaborate scheme throughout the Class Period to defraud investors through numerous materially false and misleading representations and omissions concerning Exxon's troubled reserves and the Company's purported efforts to incorporate carbon or GHG proxy costs into its investment and valuation processes concerning such assets.

378. At all relevant times, Defendants were aware or recklessly disregarded that their representations to investors were materially false and misleading and omitted material information necessary to properly evaluate the Company and its financial condition and prospects. In addition, at

all relevant times, Defendants were aware or recklessly disregarded that the financial statements Exxon filed with the SEC throughout the Class Period violated GAAP and applicable SEC accounting and disclosure rules.

379. All facts alleged throughout this complaint provide powerful evidence of Defendants' scienter. Additional facts evidencing Defendants' scienter are also alleged below.

A. The Individual Defendants Were Directly Involved in and Aware of Matters Directly Related to the Alleged Omitted Information, Which Concerned the Most Critical and Highly Scrutinized Aspects of Exxon's Business

380. As detailed *supra*, the most important aspect of any oil and gas company's business – and corporate worth – is the amount and value of its oil and gas reserves. *See* ¶¶48-49, *supra*. As such, it follows as a matter of course that the Individual Defendants – Exxon's key executives and most senior decision-makers – would necessarily have been aware of (or reckless in disregarding) the fraud alleged herein, which directly concerned such critical matters.

381. Indeed, throughout the Class Period, analysts and market participants repeatedly focused on Exxon's reserve levels and reserve replacement ratios. *See, e.g.*, ¶¶19, 48-49, 229, 235, *supra*. Such topics dominated all of the Company's conference calls, analyst meetings and shareholder meetings throughout the Class Period. *See, e.g.*, ¶¶78, 258, 268, *supra*. And each of the Individual Defendants attended and spoke at multiple such meetings or calls during the Class Period.

382. Moreover, concerns over climate change and its impact upon Exxon's business operations and long-term prospects have been an extremely important issue for the Company for as far back as the 1970s. *See* §VI.F., *infra*. As detailed herein, for many years such matters – and, specifically, their connection to Exxon's business – have drawn intense scrutiny from numerous sources, including investors, analysts, media members, the SEC, various state Attorneys General, and others.

383. It is also well-established that Exxon's efforts to address such concerns have involved the Company's highest decision-makers for many years. *See* §VI.F., *supra*. As such, it is inconceivable that Exxon's key executives would not have been aware of the fraud alleged herein, which directly concerns Exxon's efforts to address and account for the potential impacts of climate change upon the Company's long-term business operations.

384. Not surprisingly, on numerous occasions throughout the Class Period, the Individual Defendants each publicly demonstrated their intimate involvement with – and awareness of – matters directly related to the Alleged Omitted Information.

385. For example, on numerous occasions, Defendant Tillerson gave presentations at shareholder and analysts meetings – as well as other conferences – during which he addressed in depth Exxon's reserve levels, asset impairment at both Exxon and its competitors, the Company's financial results and Exxon's purported efforts to incorporate carbon or GHG proxy costs into its investment and valuation processes. *See, e.g.*, ¶¶251, 258, 262, 275, 289-291, *supra*. By so doing, Defendant Tillerson evidenced his intimate involvement in, and awareness of, the facts underlying the specific matters covered by his comments. Such facts necessarily included the fraud alleged herein, thus providing a strong inference that Tillerson was aware of the fraud, or severely reckless in failing to be aware of it – particularly in light of the critical importance and public scrutiny attached to such matters, as described above.

386. Defendant Woodbury similarly demonstrated his intimate awareness of the Alleged Omitted Information through his in-depth discussions of such matters with analysts and others during numerous conference calls and meetings throughout the Class Period. *See, e.g.*, ¶¶260, 265-266, 268, 273, 300, 302, 313, *supra*. Indeed, Woodbury played an active and vocal role in nearly every conference call, analyst meeting and shareholder meeting throughout the Class Period, repeatedly expressing his intimate awareness of, and involvement with, Exxon's reserve levels, the Company's

financial results and Exxon's purported efforts to incorporate carbon or GHG proxy costs into its investment and valuation processes. *Id*. Such statements provide a strong inference that Defendant Woodbury was aware of – or severely reckless in failing to be aware of – the facts underlying those matters, which necessarily included the fraudulent conduct alleged herein.

387. Defendant Swiger also demonstrated his awareness of the Alleged Omitted Information through his in-depth discussion of related matters at multiple analyst meetings immediately prior to and throughout the Class Period. Through such discussions, Swiger – Exxon's Senior Vice President and Principal Financial Officer – demonstrated his intimate awareness of, and involvement with, Exxon's reserve levels, the Company's financial results, and Exxon's specific investment and valuation processes. As such, Defendant Swiger's comments from such meetings provide a strong inference that he was aware of – or severely reckless in failing to be aware of – the facts underlying those matters, which necessarily included the fraudulent conduct alleged herein.

388. Defendant Rosenthal also demonstrated his awareness of the Alleged Omitted Information through his in-depth discussion of related matters during multiple calls with analysts and investors during the Class Period. Through such discussions, Rosenthal – Exxon's Vice President, Controller and Principal Accounting Officer – demonstrated his intimate awareness of, and involvement with, *inter alia*, issues concerning Exxon's shareholder distribution, the Company's reserve investment and evaluation processes, the Kearl Operation, Exxon's natural gas operations and the Company's financial results. For example, during the July 31, 2014 earnings conference call, Defendant Rosenthal spoke about the decline in U.S. natural gas prices and the "sharp reduction in gas sales" in the second quarter of 2014, and its impact on Exxon's Outlook. Specifically, Rosenthal told investors that "if we look past the quarter-to-quarter fluctuations and focus on where we're at year to date and what we're expecting in the second half, I can assure you, we are spot on to deliver the outlook that we gave you [at the March 2014 Analyst Meeting]," adding that "everything we're

doing on the gas side is per the plan. And that's a broad statement as well as in the US." In addition, Rosenthal boasted about raising the Company's shareholder dividends once again, and promised that Exxon would "continue to pay a very consistent and increasing dividend over time," explaining that "[f]ortunately for us, we don't have to sell assets in order to make a dividend payment or another distribution because of the cash flow we generate." Such comments, as well as others made by Defendant Rosenthal in Exxon's conference calls during the Class Period, provide a strong inference that Defendant Rosenthal was aware of – or severely reckless in failing to be aware of – the facts underlying the matters he discussed, which necessarily included the fraudulent conduct alleged herein.

389. Defendant Rosenthal's intimate involvement in matters directly related to the conduct alleged herein is further demonstrated by the NYOAG Evidence. Specifically, according to the sworn testimony in the Oleske Affirmation, "[t]he MTR Report originally contained a footnote addressing impairment, but ***that footnote was removed at the request of David Rosenthal***, Exxon's Vice President for Investor Relations, after he stated in a March 25, 2014 email: '[t]hat word gives folks on the third floor heartburn.'" Oleske Affirmation, ¶52; *see also* Oleske Affirmation, Ex. 13. Such evidence provides a strong inference that Defendant Rosenthal was intimately involved in matters directly related to the fraud alleged herein – and, thus, necessarily aware of, or severely reckless in failing to be aware of, the fraudulent conduct alleged herein.

390. In addition, in Exxon's "Energy and Climate" report released on March 31, 2014, the Company stated that "[t]he Outlook is reviewed and discussed ***extensively*** with the company's Management Committee and Board prior to its release." As detailed above, the Outlook – which Exxon has repeatedly described as the "foundation for [its] business and investment planning" and one of the key means through which the Company purports to account for carbon-related future risks – is one of the key documents underlying the fraud alleged herein. *See* ¶¶4-5, 248-249, 253, 257,

262-263, *supra*. Defendants Tillerson and Swiger were both members of Exxon's Management Committee throughout the Class Period. As such, the above statement regarding the Management Committee's "extensive" review and discussion of the Outlook prior to its release provides strong scienter evidence concerning Defendants Tillerson and Swiger.

391. Similarly, Defendants have also stated in responses to information requests from the CDP that, since at least 2010, the Management Committee has had "responsibility for climate change matters." Defendants' responses have further stated that:

> On the subject of ***risks of climate change***, the full ExxonMobil Board of Directors [which, at all times throughout the Class Period, included Defendant Tillerson] receives ***in depth briefings at least annually*** that cover updates on public policy, scientific and technical research, as well as ***company positions and actions in this area***.
>
> In addition, the Chairman of the Board and Chief Executive Officer [Defendant Tillerson] and members of the Management Committee [which, at all times throughout the Class Period, included Defendants Tillerson and Swiger] are ***actively engaged*** in discussions relating to greenhouse gas emissions and climate change on an ongoing basis."

Such representations provide strong additional evidence concerning the involvement in, and awareness of, matters directly underlying the fraudulent conduct alleged herein by Defendants Tillerson and Swiger – and thus, provide strong additional concerning such Defendants' scienter.

392. As detailed *supra*, Defendants Tillerson, Swiger and Rosenthal signed all of Exxon's Form 10-K reports throughout the Class Period, and also filed SEC Certifications in connection with the Company's SEC filings during the Class Period. In addition, Defendant Rosenthal signed all but two of the Company's Form 10-Q reports filed during the Class Period. As detailed *supra*, each of the SEC Certifications and all of Exxon's financial statements throughout the Class Period were materially misleading to investors, and the Company's financial statements also violated GAAP and SEC accounting and disclosure rules. As such, Defendants' signing of these documents provides additional scienter evidence as to Defendants Tillerson, Swiger and Rosenthal.

B. Defendants Were Motivated to Conceal the Alleged Omitted Information in Order to Preserve Exxon's Tenuous Credit Rating in Advance of the March 2016 Debt Offering and Maintain the Company's Reputation

393. As detailed *supra*, by the start of 2016, Exxon found itself in dire need of an infusion of capital, due to the Company's declining profits, increasing debt and unsustainable commitment to shareholder payouts. As such, Defendants knew the March 2016 Debt Offering was critically important to Exxon's ability to fund its ongoing operations and shareholder payout commitments. *See* §IV.H., *supra*.

394. At the same time, Defendants also knew Exxon was perilously close to losing its prized AAA credit rating in advance of the March 2016 Debt Offering, and that any disclosure of negative news concerning the value or profitability of Exxon's reserve assets – including, specifically, disclosure of the Alleged Omitted Information – would place the Company's tenuous AAA rating in significant jeopardy. *Id.*

395. In addition, Defendants knew that negative change in the Company's credit rating would have a significantly negative impact on the March 2016 Debt Offering – most notably, an appreciable increase in Exxon's financing costs – and would threaten Exxon's ability to continue to pay its shareholder divided at current levels. *Id.*

396. As detailed *supra*, Defendants have repeatedly noted the key role that Exxon's shareholder dividend plays in the Company's reputation and stock price. *See* ¶¶84-85, *supra*. Indeed, on the same day that the March 2016 Debt Offering closed, Defendant Tillerson specifically described Exxon's dividend as the reason "***why we are important to people***."

397. The above facts provide strong evidence of Defendants' motive to conceal the Alleged Omitted Information in advance of the March 2016 Debt Offering, in order to preserve Exxon's

tenuous AAA-rating, avoid incurring significant additional borrowing costs and maintain payment of the Company's critical shareholder dividend.

398. In addition, as detailed *supra*, throughout the Class Period, and for many years prior, Defendants repeatedly claimed that Exxon was superior to the Company's peers both financially and operationally. *See, e.g.*, ¶¶82-83, *supra*. Defendants knew that disclosure of any of the Alleged Omitted Information would severely undermine such claims, and cause significant damage to the falsely inflated corporate reputation they so frequently touted – in addition to the damage such disclosures would cause to Exxon's stock price. This knowledge added additional motivation for Defendants to conceal their fraud, and thus, provides additional evidence of Defendants' scienter.

C. The Volume of Lawsuits and Investigations into the Alleged Fraud Supports an Inference of Scienter

399. As noted *supra*, Defendants currently face ongoing investigations from at least the SEC and multiple state Attorneys General, concerning much of the same fraudulent conduct alleged herein. *See* §IV.I., *supra*. As detailed above, the NYOAG has publicly disclosed some of the evidence uncovered through its investigation, and has asserted, in sworn testimony provided under penalty of perjury, that "[i]t appears that Exxon's proxy-cost risk-management process ***may be a sham***," and that "Exxon represented to investors and the public that it was incorporating higher costs of GHG regulation into its business decisions ***than documents indicate that it actually was using***, thereby potentially misleading investors and the public about the extent to which it was protecting its business from regulatory risks related to climate change." *See* §IV.E., *supra*; *see also* Oleske Affirmation, ¶¶21, 34.

400. In addition, Defendants are currently involved in multiple civil lawsuits concerning much of the same fraudulent conduct alleged herein. *E.g.*, *Conservation Law Foundation, Inc. v. Exxon Mobil Corporation*, No. 1:16-cv-11950 (D. Mass. Sept. 29, 2016); *Fentress v. Exxon Mobil*

Corporation, No. 4:16-cv-03484 (S.D. Tex. Nov. 23, 2016); *Rockefeller Brothers Fund v. Exxon Mobil Corporation*, No. 1:16-mc-455 (S.D.N.Y. Dec. 9, 2016); *People v. PricewaterhouseCoopers LLP*, No. 451962/2016 (N.Y. Sup. Ct., N.Y. Cty. Oct. 14, 2016); *Juliana v. United States*, No. 6:15-cv-1517 (D. Or. Aug. 12, 2015); *County of San Mateo v. Chevron Corp.*, No. 17Civ03222 (Cal. Super. Ct., San Mateo Cty. July 17, 2017); *County of Marin v. Chevron Corp.*, No. 17-civ-02586 (Cal. Super. Ct., Marin Cty. July 17, 2017); *City of Imperial Beach v. Chevron Corp.*, No. 17 -01227 (Cal. Super. Ct., Contra Costa Cty. July 17, 2017).

401. The above investigations and lawsuits provide additional evidence of Defendants' fraudulent course of conduct and intent to deceive. Moreover, the additional attention that Defendants have necessarily been required to devote to the facts underlying such investigations and lawsuits (*i.e.*, much of the same misconduct alleged herein) serves as an additional red flag that makes it even further inconceivable that the Individual Defendants would not have been aware of the fraud alleged herein.

D. Exxon Has Demonstrated Significant Control over – and Involvement in – the Business and Operations of Imperial and XTO

402. Exxon has owned and controlled Imperial for over 115 years, since its predecessor, Standard Oil, first acquired a majority interest in Imperial in 1898. Throughout the Class Period, and at present, the business and operations of Exxon and Imperial have been and are intricately intertwined, with Exxon exercising close control over, and financial support for, its majority-owned consolidated subsidiary.

403. For example, Exxon typically rotates senior Exxon managers into, then back out of, Imperial's executive management, and its current top executives continue to reflect this. Exxon's current Chairman and CEO, Darren Woods, was an executive director on Imperial's Board of Directors until 2014. Richard Kruger, Imperial's current Chairman, President and CEO started his

career at Exxon, and spent 32 years in various managerial assignments at Exxon. Mr. Kruger was previously the president of ExxonMobil Production Company and a Vice President of Exxon, before assuming the role of Imperial's Chairman and CEO in 2013. Bruce March, the man Mr. Kruger replaced as Imperial's CEO was himself a long-time Exxon executive before being rotated to Imperial in 2008, then back to ExxonMobil in 2013. Similarly, Imperial's next five most-senior vice presidents spent considerable portions of their careers in various corporate or global senior management positions at Exxon prior to assuming their current senior positions at Imperial. Five of Imperial's seven members of its Board of Directors are Exxon or Imperial executives.

404. In the sworn testimony of the Oleske Affirmation, the NYOAG has asserted that documents produced by Exxon employees indicate that Imperial President Kruger has "routine contact with Exxon's Management Committee." Oleske Affirmation, ¶85.

405. For example, in a November 23, 2015 email to Exxon's now current CEO Darren Woods and fellow Exxon executive Jack Williams, Mr. Kruger reported his detailed thoughts on how the change in Canadian GHG emissions tax policy might impact Imperial's operations, and how Imperial should respond to the media concerning the changes.

406. Disclosures in Imperial's Form 10-K filings also reveal that Exxon is significantly involved in Imperial's operations, that the two companies are intertwined, and that Exxon provides considerable oversight and financial support to Imperial. For example:

- Imperial's CEO Kruger and second in command Senior Vice President Cahir are considered on expatriate assignment from Exxon and their salaries are paid ***directly by Exxon*** in U.S. dollars. Imperial periodically reimburses Exxon for this expense.

- Exxon provides, and Imperial relies upon, considerable direct financial support to Imperial, including a short-term, non-interest bearing demand loan of $75 million, and a $7.75 billion long-term floating rate loan facility to Imperial to finance normal operations and capital projects. Exxon increased this facility by $1.5 billion to $7.75 billion in 2015.

- Ninety percent, or $5.95 billion, of Imperial's total long-term debt at year-end 2015 was owed to Exxon.

- Many of Imperial's officers remain participants in and continue to receive benefits from various Exxon benefit plans, including Exxon's restricted stock grant plan, earnings bonus plan, annual cash bonus plan, savings plan, pension plans, and Exxon's executive life insurance benefit plan.

- Imperial relies upon the research and development organizations of Exxon, with whom Imperial conducts shared research.

- Imperial entered into agreements with Exxon to provide for the delivery of management, business and technical services to Syncrude Canada Ltd. by Exxon.

- Imperial has agreements with affiliates of Exxon to provide computer and customer support services to Imperial and to share common business and operational support services to allow the companies to consolidate duplicate work and systems.

- Imperial's succession plans for key senior executive positions include consideration of candidates for these positions from within Imperial and certain candidates from Exxon.

- By virtue of the majority stock ownership of Imperial by Exxon, the Government of Canada, under the Investment Canada Act, considers Imperial to be an entity which is not controlled by Canadians.

407. Imperial accesses Exxon's research worldwide, and has scientific research agreements with affiliates of Exxon, which provide for technical and engineering work to be performed by all parties, the exchange of technical information and the assignment and licensing of patents and patent rights. These agreements provide mutual access to scientific and operating data related to nearly every phase of the petroleum and petrochemical operations of the parties.

408. Exxon has also owned and controlled XTO since acquiring it in 2010. Throughout the Class Period, and at present, the business and operations of Exxon and XTO have been closely integrated, with Exxon exercising close control over its wholly-owned, consolidated subsidiary.

409. Indeed, Defendant Tillerson detailed Exxon's control and integration of XTO at the Company's annual analyst meeting on March 6, 2013, stating in part:

> Well, first, I would take exception to characterizing it [XTO] as a separate business unit because it is very – it is now in the two plus years since we've

> concluded that merger acquisition. It [XTO] has become very integrated with the rest of the Exxon Mobil Corporation organization . . . .
>
> . . . I'm very pleased with the quality of its people and how quickly people embraced it because that's always a question.
>
> * * *
>
> We have also transferred a large number of people from the ExxonMobil Production Company to XTO in Fort Worth, that's helped with their assimilation into the organization . . . .

410. Exxon also rotates senior Exxon and Imperial managers into, then back out of XTO's executive management, and XTO's current and past top executives reflect this. For example, XTO's current president, Sara Ortwein, began her career with Exxon as an engineer in 1980 and, after a series of progressively more responsible managerial appointments, transferred to XTO as President in 2016. Ms. Ortwein's immediate predecessor, Randy Cleveland, also came to XTO from Exxon in 2010, immediately following the merger, and returned to Exxon as Regional VP, Americas in 2016. Similarly, four of XTO's current senior vice presidents spent considerable portions of their careers in various corporate or global senior management positions at Exxon or Imperial prior to assuming their current senior positions at XTO. In addition, XTO management reports directly to Exxon Senior Vice President and Management Committee member Jack Williams who, after joining Exxon in 1987 and holding a series of global managerial positions within Exxon, was named President of XTO in 2010. Mr. Williams then returned to Exxon in 2013 as Senior Vice President.

E. Exxon Is Legally Responsible for the Conduct of the Individual Defendants

411. Exxon acted with scienter because the scienter of its most senior executives – which plainly include each of the Individual Defendants – is imputed to the Company. As noted *supra*, Defendant Tillerson was Exxon's Chairman of the Board and CEO throughout the Class Period. Defendant Swiger was, at all relevant times, the Company's Senior Vice President and Principal Accounting Officer. Defendant Rosenthal was Exxon's Vice President, Controller and, throughout

the Class Period. And Defendant Woodbury was, at all relevant times, the Company's Vice President of Investor Relations and Secretary, and routinely made representations to shareholders and analysts on Exxon's behalf in such capacity. As Exxon's most important executives and corporate representatives, the Individual Defendants' scienter, as detailed herein, is indisputably imputed to the Company.

F. Exxon Has a Well-Documented History of Deception and Misinformation Regarding Potential Climate Change-Related Impacts on Its Long-Term Business Prospects

412. Exxon has a long history of publicly misrepresenting the long-term threats to its business prospects due to climate change-related concerns. The full extent of Exxon's deception has come to light in recent years through a series of documents that have been leaked to the public, revealed through Freedom of Information Act ("FOIA") requests, and through various lawsuits and investigations.

413. Beginning in the late 1970s, numerous Exxon scientists confirmed the existence of climate change directly resulting from the burning of fossil fuels and advised senior Exxon management. Examples include as follows:

- In 1977, Exxon's own scientists warned the Company's management committee that there is "***general scientific agreement*** that the most likely manner in which mankind is influencing the global climate is through ***carbon dioxide release from the burning of fossil fuels***."[45]

- In a 1978 presentation, J.F. Black, then a technical expert in Exxon's Research & Engineering division, told Exxon scientists and managers that independent researchers estimated a doubling of the carbon dioxide (CO_2) concentration in the atmosphere would increase average global temperatures by 2 to 3 degrees Celsius (4 to 5 degrees Fahrenheit), and as much as 10 degrees Celsius (18 degrees Fahrenheit)

[45] Letter from J.F. Black to F.G. Turpin attaching review of *The Greenhouse Effect*, June 6, 1978, https://insideclimatenews.org/sites/default/files/documents/James%20Black%201977%20Presentation.pdf; *see also* Neela Banerjee, Lisa Song & David Hasemyer, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, InsideClimate News, Sept. 16, 2015, http://insideclimatenews.org/ news/15092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming.

at the poles.[46] In a summary of the presentation, he wrote that "[p]resent thinking holds that ***man has a time window of five to ten years*** before the need for hard decisions regarding changes in energy strategies might become critical."[47]

- In October 1979, in an internal Exxon Research and Engineering document, Exxon scientist W.L. Ferrall stated in a letter to Dr. R.L. Hirsch, another Exxon scientist, that "[p]resent climatic models predict that ***the present trend of fossil fuel use will lead to dramatic climatic changes within the next 75 years***."[48]

- By 1982, Exxon's internal scientists collaborated with outside researchers to create "rigorous climate models," including "computer programs that simulate the workings of the climate to assess the impact of emissions on global temperatures."[49] The models confirmed an "***emerging scientific consensus***" that climate warming could be even worse than Black had warned of in 1978.[50]

- In September 1982, Roger Cohen, director of the Theoretical and Mathematical Sciences Laboratory at Exxon Research, wrote to A.M. Natkin of Exxon's Science and Technology Office, summarizing the findings of his team's research in climate modeling. Among other things, Mr. Cohen stated that "***a clear scientific consensus has emerged*** . . . that a doubling of atmospheric CO_2 from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5)°C," and further, that "[t]here is ***unanimous agreement*** in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth's climate."[51]

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46 N. Banerjee, L. Song & D. Hasemyer, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, InsideClimate News, Sept. 16, 2015, http://insideclimatenews.org/news/15092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming.

47 Letter from J.F. Black to F.G. Turpin attaching review of *The Greenhouse Effect*, June 6, 1978, https://insideclimatenews.org/sites/default/files/documents/James%20Black%201977%20Presentation.pdf.

48 Letter from W.L. Ferrall to R.L. Hirsch attaching Steve Knisely Memorandum, Exxon Research and Engineering Company, Oct. 16, 1979, https://insideclimatenews.org/sites/default/files/documents/CO2%20and%20Fuel%20Use%20Projections.pdf.

49 N. Banerjee, L. Song & D. Hasemyer, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, InsideClimate News, Sept. 16, 2015, http://insideclimatenews.org/news/15092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming.

50 *Id*.

51 Letter from R. W. Cohen to A.M. Natkins enclosing *CO_2 Climate Modeling Research: Timetable for Presentations and Publications*, Exxon Research and Engineering Company, Sept. 2, 1982, https://insideclimatenews.org/system/files_force/documents/%2522Consensus%2522%20on%20CO2%20Impacts%20%281982%29.pdf?download=1.

- On November 12, 1982, Marvin B. Glaser, an Environmental Affairs Manager at Exxon, distributed a 43-page primer on the CO_2 greenhouse effect "to Exxon management," and instructed that "it should be restricted to Exxon personnel and not distributed externally."[52]

414. Armed with the knowledge that climate change is a scientific fact, Exxon has since made various efforts to account for the effects of climate change on its business. For example, Exxon engineers have made structural allowances for rising temperatures and sea levels at the Company's own exploration and production facilities, and otherwise incorporated climate change projections and effects when designing gas fields, pipelines, and other projects in connection with oil and gas development.[53] As but one example, in 1996, Exxon engineers were "concerned enough about climate change to design and build a collection of exploration and production facilities along the Nova Scotia coast ***that made structural allowances for rising temperatures and sea levels.***"[54] Company engineers estimated in their design specifications that a "'rise in water level, due to global warming, of 0.5 meters may be assumed'" for the 25-year life of what was called the Sable gas field project.[55]

415. For many years, despite the overwhelming evidence known to Exxon management – and communicated ***from Exxon's own scientists*** – the Company did not disclose what they knew to investors in public filings, nor did they tell investors that climate change risks were already impacting Exxon's business decisions.[56] They failed to disclose these risks despite the fact that Exxon's

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[52] M.B. Glaser, Letter enclosing briefing material on the "CO_2 'Greenhouse Effect,'" Nov. 12, 1982,Http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf.

[53] *See* A. Lieberman & S. Rust, *Big Oil braced for global warming while it fought regulations*, L.A. Times, Dec. 31, 2015, http://graphics.latimes.com/oil-operations/.

[54] *Id*.

[55] *Id*.

[56] N. Banerjee, L. Song & D. Hasemyer, *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, InsideClimate News, Sept. 16, 2015,

scientists had warned the Company's management that policy changes to address climate change might affect profitability.[57]

416. Exxon, however, did more than just fail to disclose what they knew about climate change. Indeed, beginning in the 1980s and continuing for many years thereafter, the Company embarked on an active misinformation campaign designed to mislead the public about how burning hydrocarbons was causing climate change. For example:

- In 1988 Exxon developed a formal corporate position on its public stance on climate change. Joseph Carlson, an Exxon public affairs manager, described "The Exxon Position" which included, among others, two important messaging tenets, both of which were contrary to Exxon's own internal scientific understanding: (1) "[e]mphasize the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse Effect"; and (2) "[r]esist the overstatement and sensationalization [sic] of potential greenhouse effect which could lead to noneconomic development of nonfossil fuel resources."

- In 1989, Exxon joined with the American Petroleum Institute ("API") (the country's largest oil trade association, of which Exxon is a member) and other industry companies to form the Global Climate Coalition ("GCC"). The GCC led an aggressive lobbying campaign to undermine climate science, telling lawmakers and journalists that "'[t]he role of greenhouse gases in climate change is not well understood'" and "'scientists differ'" on the issue, despite the fact that the GCC's own experts acknowledged internally that they believed the science could not be refuted.[58]

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http://insideclimatenews.org/news/15092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming.

[57] *See* N. Banerjee, L. Song & D. Hasemyer, *Exxon Believed Deep Dive Into Climate Research Would Protect Its Business,* InsideClimate News, Sept. 17, 2015, https://insideclimatenews.org/news/16092015/exxon-believed-deep-dive-into-climate-research-would-protect-its-business.

[58] In 1995, the GCC, led by Company engineer and climate expert Leonard S. Bernstein, drafted an internal memo titled "Predicting Future Climate Change: A Primer." This memo, which only came to light in 2009 after being leaked to *The New York Times,* shows that the industry, including Exxon, acknowledged that "'[t]he scientific basis for the Greenhouse Effect and the potential impact of human emissions of greenhouse gases such as CO_2 on climate is well ***established and cannot be denied.***'" Andrew C. Revkin, *Industry Ignored Its Scientists on Climate,* N.Y. Times, Apr. 23, 2009, http://www.nytimes.com/2009/04/24/science/earth/24deny.html?mcubz=0.

- Since the 1990s, Exxon has spent millions of dollars funding groups that spread misinformation about climate science.[59] In 2005, Exxon funded at least 39 different groups in the United States alone that pushed some form of climate change denial. A 2006 analysis by the United Kingdom's science academy, the Royal Society, revealed that Exxon had provided more than $2.9 million in 2005 to organizations in the United States that misinformed the public about climate change.[60] Between 1998 and 2005, Exxon funneled around $16 million to front groups manufacturing uncertainty about the science, including to the American Legislative Exchange Council ("ALEC"), which received over $1 million in funding from Exxon, about one-third of it specifically dedicated to climate change projects.[61]

- In 1997, the Company took out advertisements in The New York Times and Washington Post which falsely stated that "***The science of climate change is too uncertain to mandate a plan of action that could plunge economies into turmoil***."[62] This was only two years after Company scientist, Leonard S. Bernstein, had written that "[t]he scientific basis for the Greenhouse Effect and the potential impact of human emissions of greenhouse gases such as CO_2 on climate ***is well established and cannot be denied***."[63]

- A similar ad also appeared in *The New York Times* in 1997 stating that "[e]ven after two decades of progress, ***climatologists are still uncertain how – or even if – the buildup of man-made greenhouse gases is linked to global warming***. It could be at least a decade before climate models will be able to link greenhouse warming unambiguously to human actions."[64]

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59 *See* http://insideclimatenews.org/sites/default/files/documents/Royal%20Society%20Letter%20to%20Exxon%20%282006%29.pdf.

60 *See id.*

61 *See Smoke, Mirrors & Hot Air*, *Union of Concerned Scientists*, Jan. 2007, http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/exxon_report.pdf.

62 *Reset the alarm*, Mobil advertisement, Oct. 30, 1997, http://www.documentcloud.org/documents/705561-mob-nyt-1997-oct-30-resetalarm.html; *see also* Amy Lieberman & Susanne Rust, *Big Oil braced for global warming while it fought regulations*, L.A. Times, Dec. 31, 2015, http://graphics.latimes.com/oil-operations/.

63 Memorandum from Gregory J. Dana, Vice President and Technical Director, to AIAM Technical Committee re Global Climate Change Coalition – Primer on Climate Change Science, Jan. 18, 1996 (source document to Dossier No. 7), at 1, http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-7_GCC-Climate-Primer.pdf.

64 *Climate change; where we come out*, Mobil advertisement, Nov. 20, 1997, http://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html (underlined emphasis in original).

- In 2000, Exxon published another ad in the *New York Times* and the *Wall Street Journal* titled "Unsettled Science" which relied on a scientific paper published by Dr. Lloyd Keigwin in *Science* to refute the idea that climate change was occurring. After the ad appeared, Dr. Keigwin wrote to Exxon to refute Exxon's claims and charged the Company with cherry picking his data in order to exploit his research.

- Exxon's former CEO Lee Raymond further stated in 1997 that climate change was an "illusion."

417. More recently, Exxon has publicly stated its intention to stop funding activist groups promoting climate disinformation. For example, in Exxon's 2007 Corporate Citizenship report, the Company stated that "[i]n 2008 we will discontinue contributions to several public policy research groups whose position on climate change could divert attention from the important discussion on how the world will secure the energy required for economic growth in an environmentally responsible manner."

418. Unfortunately, such representations were false. In a July 15, 2015 article published by *The Guardian*, it was reported that Exxon continued to give members of Congress and corporate lobbying groups that deny climate change more than $2.3 million, including nearly half a million dollars to ALEC, an organization known for engaging in climate obstruction. For instance, in 2007 ALEC lobbied the Environmental Protection Agency ("EPA") not to regulate certain emissions, claiming a "lack of evidence that human-caused emissions of greenhouse gases will 'endanger public health or welfare.'"

419. In February 2015, a FOIA document request revealed that Exxon had also been secretly funding a purportedly independent scientist to research the role that the sun plays in climate change. The documents revealed that beginning in 2001, Dr. Wei-Hock Soon had been the recipient of more than $1.2 million in research funding from fossil fuel interests including Exxon and API. Dr. Soon's research was exclusively funded by Exxon and fossil fuel interests which reserved the right to review his studies before they were published. According to the Union of Concerned Scientists, Dr.

Soon's research methodology and conclusions were widely criticized and discredited by his scientific peers, yet for years his work was cited by climate science denial front groups to promote doubt about the role of burning fossil fuels in causing climate change. The clear conflict of interest with Exxon's covert funding of Dr. Soon's work was never disclosed in his published works or in his testimony to lawmakers.

420. In short, for many years Exxon took affirmative efforts to publicly disseminate information that directly contradicted the findings of Exxon's own scientists, who had communicated to Exxon executives many years prior, *inter alia*, that: "the level of carbon dioxide in the atmosphere has increased"; "[t]he carbon dioxide content of the atmosphere is of concern since it can affect global climate"; and "once the effects are measureable, they might not be reversible [and] [m]itigation of the 'greenhouse effect' would require major reductions in fossil fuel."[65]

VII. LOSS CAUSATION

421. The Class was damaged as a result of Defendants' materially false and misleading statements and omissions of material fact, as set forth herein. As described further above, during the Class Period, Defendants issued a series of misstatements (and omitted material facts) to conceal the true facts that: (i) Exxon's actual investment and asset valuation processes did not incorporate GHG or carbon "proxy costs" in a manner that was consistent with the Company's public representations and/or Exxon's own internal policies (*see* §IV.E., *supra*); (ii) Exxon did not incorporate GHG or carbon "proxy costs" into its asset impairment evaluation processes (*see* § IV.E., *supra*); (iii) Exxon's Canadian Bitumen Operations were operating at a loss from at least mid-November 2015 through mid-April 2016 (*see* §IV.G.1., *supra*); (iv) Exxon knew the Kearl Operation would not satisfy the

[65] M.B. Glaser, Letter enclosing briefing material on the "CO_2 'Greenhouse Effect,'" Nov. 12, 1982, http://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf.

SEC definition for proved reserves at year-end 2016, absent an extraordinary – and, by Exxon's own subsidiary's internal estimates, unexpected – rise in the price of oil (*see* §IV.G.1., *supra*); and (v) a significant portion of Exxon's Rocky Mountain dry gas operations were impaired by no later than year-end 2015 (*see* §IV.G.1., *supra*).

422. As a result of Defendants' misrepresentations and omissions of material facts, the price of Exxon's common stock was artificially inflated throughout the Class Period.

423. As such, members of the Class purchased Exxon's common stock at artificially inflated prices during the Class Period. But for Defendants' misrepresentations and omissions, members of the Class would not have purchased Exxon's common stock at artificially inflated prices.

424. As Defendants' various misstatements and omissions were gradually revealed through a series of partial corrective disclosures, the price of Exxon's common stock declined. The corrective impact of the disclosures alleged herein was tempered, however, by Defendants' continued misstatements and omissions as detailed above.

425. The Class suffered economic losses as the price of Exxon's common stock fell in response to the issuance of partial corrective disclosures, as set forth below. However, the disclosures set forth below do not necessarily represent an exhaustive list of all stock price declines attributable to Defendants' fraudulent conduct, given that fact and expert discovery in this case has not yet begun. Lead Plaintiff expressly reserves the right to identify additional relevant disclosures and price declines following the conducting of fact and expert discovery in this case.

A. November 9, 2015: *The Guardian* Discloses Focus of NYOAG's Investigation Concerning Misrepresentations to Investors About Potential Business Risks of Climate Change

426. On November 9, 2015, *The Guardian* revealed that the focus of the NYOAG's investigation into Exxon encompassed claims that it lied to investors about climate change and "the dangers and potential business risks" that the Company faced. Sources cited in the report confirmed

that "the investigation will focus on any inconsistencies between the company's knowledge of climate change . . . and its filings to the Securities Exchange Commission and other government regulatory agencies."

427. These disclosures partially corrected certain of Defendants' prior misstatements and omissions.

428. Investors responded negatively to the news on November 9, 2015, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock on November 9, 2015, from $84.47 per share at the close of trading on November 6, 2015, to $81.95 per share at the close of trading on November 9, 2015, a decline of 2.98%, while the CRSP Total Market Index (the "Market Index") and the Oil and Gas Exploration and Petroleum Index (the "Peer Group") only declined by 0.97% and 0.60%, respectively.

B. January 20, 2016: The *Los Angeles Times* Reveals that the California Attorney General Is Investigating Exxon for Potential Securities Fraud

429. On January 20, 2016, the *Los Angeles Times* reported that California Attorney General Kamala D. Harris was investigating whether Exxon repeatedly lied to the public and investors about the risks to its business from climate change, specifically whether Exxon's actions "could amount to securities fraud and violations of environmental laws." A source close to the investigation said that Attorney General Harris was reviewing "what Exxon Mobil knew" versus "what the company told investors."

430. This disclosure partially corrected certain of Defendants' prior misstatements and omissions.

431. Investors responded strongly to the news on January 20, 2016, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock, from $76.40 per share at the close of trading on January 19, 2016, to $73.18 per share at the close of

trading on January 20, 2016, a decline of 4.31%, while the Market Index and the Peer Group only declined by 1.00% and 2.22%, respectively.

C. August 10, 2016: *The Washington Post* Publishes an Article Regarding Exxon's Attempt to Thwart State Investigations

432. After the markets had closed on August 9, 2016, *The Washington Post* published a scathing op-ed by United States Senators Elizabeth Warren and Sheldon Whitehouse, entitled "Big Oil's master class in rigging the system." In it, the Senators revealed that Exxon and its allies with financial ties to the oil and gas industry were harassing and bullying investigators in an attempt to "sidetrack state investigations and silence groups petitioning the government to address [Exxon's] potential wrongdoing" and avoid "court-supervised discovery . . . into whether it has spent decades deliberately deceiving the public about the harms associated with [climate change]."

433. On August 10, 2016, *Environment and Energy Publishing LLC* reported that Senate Democrats were urging Republican leaders to call Exxon executives to testify about climate change in light of state Attorney General investigations into whether Exxon knowingly misled the public and investors regarding the risks of carbon emissions.

434. In addition, *Environment and Energy Publishing LLC* reported on August 10, 2016 that Senator Whitehouse and Senator Brian Schatz were unconvinced by Exxon's supposed support of a carbon fee, bluntly stating "'we've seen no meaningful evidence of that.'" On the contrary, the Senators pointed to several front groups, including ALEC, that had received hundreds of thousands of dollars in financing from Exxon, and are "'vehemently against the carbon fee [that Exxon] claim[s] to support.'"

435. These disclosures partially corrected certain of Defendants' prior misstatements and omissions.

436. Investors responded negatively to the news on August 10, 2016, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock on August 10, 2016, from $88.70 per share at the close of trading on August 9, 2016, to $86.41 per share, at the close of trading on August 10, 2016, a decline of 2.58%, while the Market Index and the Peer Group only declined by 0.30% and 0.92%, respectively.

D. October 28, 2016 - October 31, 2016: Exxon Discloses Potentially Massive Proved Reserve De-Booking

437. On Friday, October 28, 2016, before the open of trading, Exxon issued a release announcing its financial results for its third quarter ended September 30, 2016. As detailed *supra*, Exxon disclosed that it might be forced to de-book nearly 20% of its oil and gas reserves, specifically acknowledging that it might have to de-book 3.6 billion barrels of oil sand reserves and one billion barrels of other North American reserves.

438. As *The New York Times* stated later that day, while Exxon "has long insisted that it has been adequately accounting for the value of its oil and gas reserves – even as many other petroleum companies have taken big write-offs to reflect a two-year price slump," the potential de-booking the Company now "face[s] could be the biggest accounting revision of reserves in its history."

439. *The Wall Street Journal* also noted on October 28, 2016 that Exxon "warned that it may be forced to eliminate almost 20% of its future oil and gas prospects, yielding to the sharp decline in global energy prices," even though up until then "Exxon [had been] alone among major oil companies in not having written down the value of its future wells as prices fell." The article also suggested that future climate change regulations may make the Canadian oil sands "too expensive to tap."

440. These disclosures partially corrected certain of Defendants' prior misstatements and omissions.

441. Investors responded strongly to the Company's disclosures on October 28, 2016, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock, from $86.92 per share at the close of trading on Thursday, October 27, 2016, to $84.78 per share at the close of trading on Friday, October 28, 2016, a decline of 2.46%, while the Market Index only declined by 0.27% and the Peer Group actually ***increased*** by 0.39%.

442. Over the weekend, investors continued to digest Exxon's October 28, 2016 disclosure. As a result, investors again responded negatively on Monday, October 31, 2016, causing another significant drop (after considering market and peer-group factors) in the price of Exxon's common stock, from $84.78 per share at the close of trading on Friday, October 28, 2016, to $83.32 per share at the close of trading on Monday, October 31, 2016, a decline of 1.74%, while the Market Index actually ***increased*** by 0.06% and the Peer Group only declined by 0.81%.

E. January 19, 2017: UBS Downgrades Exxon to "Sell"

443. On January 18, 2017, after the close of trading, UBS downgraded Exxon to "sell," and reduced its price target from $86 to $77, citing Exxon's "risk of de-booking up to 4.6 of its 24.8 BBoe of proved reserves." UBS noted that de-booking might "prompt investor concerns [that] XOM may need to make [another] large acquisition."

444. This disclosure partially corrected certain of Defendants' prior misstatements and omissions.

445. Investors responded strongly to the news on January 19, 2017, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock, from $86.28 per share at the close of trading on January 18, 2017, to $84.73 per share at the close of trading on January 19, 2017, a decline of 1.80%, while the Market Index and the Peer Group only declined by 0.42% and 0.43%, respectively.

F. January 31, 2017 - February 1, 2017: Exxon Announces $2.03 Billion Asset Impairment Charge and Confirms Proved Reserves De-Booking

446. On January 31, 2017, before the open of trading, Exxon issued a release announcing its financial results for the fourth quarter ended December 31, 2016. In the release, Exxon disclosed that it would be taking an upstream asset impairment charge of about $2 billion largely related to its dry gas operations with undeveloped acreage in the U.S. Rocky Mountain region.

447. On the same date, Exxon also signaled to investors that it would, in fact, de-book the Kearl Operation reserves when it announced its "final year-end reserves . . . in the next couple of weeks."

448. These disclosures partially corrected certain of Defendants' prior misstatements and omissions.

449. Analysts and market commentators reacted strongly. For example, *The Financial Times* reported on January 31, 2017 that Exxon's earnings per share were well below analysts' expectations. The *Financial Times* added that:

> Exxon's earnings per share were 41 cents for the fourth quarter of 2016, with net income of $1.68bn, 40 per cent lower than expected. The average of analysts' forecasts was for earnings per share of 70 cents in the quarter.
>
> The lower than expected earnings came after a $2.03bn charge for a writedown in the value of some of ExxonMobil's assets, principally gasfields in the Rocky Mountain region of the US.

450. Analysts at J.P. Morgan reacted negatively to this news, stating that Exxon's "earnings quality wasn't great" and "[n]o color was given" to help "resolve near-term concerns from investors [about] reserve revisions." Furthermore, J.P. Morgan analysts noted that "investors are likely still to be wary near-term around reserve revisions risk, with color expected in the next few weeks. We remain Neutral and tweak down our Dec 2017 price target to $93/share from $94."

451. Similarly, analysts at Jefferies noted a lack of impairment to oil sands assets, stating:

> XOM recorded a $2.0b impairment on dry natural gas assets in the Rockies, but there was no financial impairment on its Canadian oil sands assets. XOM indicated in 3Q that oil sands may not qualify as proved reserves at year-end. The lack of a financial impairment does not eliminate the risk of a reserve write-down however. The company currently recognizes 3.6b boe at the Kearl project, about 15% of the total corporate proved reserves.

452. Over the two trading days following Exxon's January 31, 2017 disclosure, investors also reacted strongly, causing a significant drop (after considering market and peer-group factors) in the price of Exxon's common stock, from $84.86 per share at the close of trading on January 30, 2017, to $82.94 per share at the close of trading on February 1, 2017, a decline of 2.26%, while the Market Index actually ***increased*** by 0.04% and the Peer Group only declined by 0.65%.

VIII. THE PRESUMPTION OF RELIANCE

453. Lead Plaintiff and the Class will rely upon the presumption of reliance established by the fraud-on-the-market doctrine in that, among other things:

(i) Defendants made public misstatements or failed to disclose material facts during the Class Period;

(ii) The omissions and misstatements were material;

(iii) The Company's stock traded in an efficient market;

(iv) The misrepresentations alleged would tend to induce a reasonable investor to misjudge the value of the Company's common stock; and

(v) Lead Plaintiff and other members of the Class purchased Exxon common stock between the time Defendants made material misstatements or failed to disclose material facts and the time the true facts were disclosed, without knowledge of the misstated or omitted facts.

454. At all relevant times, the market for Exxon common stock was efficient for the following reasons, among others:

(i) Exxon stock met the requirements for listing, and was listed and actively traded on the NYSE, a highly efficient and automated market;

(ii) As a regulated issuer, Exxon filed periodic public reports with the SEC; and

(iii) Exxon regularly communicated with public investors via established market communication mechanisms, including through regular disseminations of press releases on the major news wire services and through other wide-ranging public disclosures, such as communications with the financial press, securities analysts and other similar reporting services.

IX. THE INAPPLICABILITY OF THE STATUTORY SAFE HARBOR

455. Many (if not all) of Defendants' false and misleading statements during the Class Period were not forward-looking statements ("FLS") and/or were not identified as such by Defendants, and thus did not fall within any "Safe Harbor."

456. Exxon's verbal "Safe Harbor" warnings accompanying its oral FLS issued during the Class Period were ineffective to shield those statements from liability.

457. Defendants are also liable for any false or misleading FLS pleaded because, at the time each FLS was made, the speaker knew the FLS was false or misleading and the FLS was authorized and/or approved by an executive officer of Exxon who knew that the FLS was false. Further, none of the historic or present tense statements made by Defendants were assumptions underlying or relating to any plan, projection or statement of future economic performance, as they were not stated to be such assumptions underlying or relating to any projection or statement of future economic performance when made.

X. CLASS ACTION ALLEGATIONS

458. Lead Plaintiff brings this action as a class action pursuant to Rule 23 of the Federal Rules of Civil Procedure on behalf of all members of the Class. Excluded from the Class are Defendants and their families, the officers and directors of the Company, at all relevant times, members of their immediate families and their legal representatives, heirs, successors or assigns, and any entity in which Defendants have or had a controlling interest.

459. The members of the Class are so numerous that joinder of all members is impracticable. The Company's stock is actively traded on the NYSE and there are over four billion shares of Exxon stock outstanding. While the exact number of Class members is unknown to Lead Plaintiff at this time and can only be ascertained through appropriate discovery, Lead Plaintiff believes that there are hundreds or thousands of members in the proposed Class. Record owners and other members of the Class may be identified from records maintained by Exxon or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions.

460. There is a well-defined community of interest in the questions of law and fact involved in this case. Common questions of law and fact exist as to all members of the Class and predominate over any questions solely affecting individual members of the Class. Questions of law and fact that are common to the Class include, among other things:

(i) Whether Defendants violated the Exchange Act;

(ii) Whether Defendants publicly omitted and/or misstated material facts concerning, *intra alia*, the Company's investment and asset valuation processes and particular problems facing certain of Exxon's specific reserve assets;

(iii) Whether Defendants knew or deliberately disregarded that their statements were false and misleading;

(iv) Whether Defendants' material misstatements and/or omissions artificially inflated the price of Exxon's common stock during the Class Period; and

(v) The extent and appropriate measure of damages sustained by members of the Class.

461. Lead Plaintiff's claims are typical of those of the Class, as all Class members were similarly damaged by Defendants' unlawful conduct alleged herein.

462. Lead Plaintiff will adequately protect the interests of the Class and has retained counsel who are competent and experienced in class action securities litigation. Moreover, Lead Plaintiff has no interests that conflict with those of the Class.

463. A class action is superior to other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation makes it impossible for all members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

COUNT I

For Violations of §10(b) of the Exchange Act and Rule 10b-5 Against All Defendants

464. Lead Plaintiff incorporates by reference and expressly realleges all allegations set forth in ¶¶1-463, *supra*, as if fully set forth herein.

465. This cause of action is brought pursuant to §10(b) of the Exchange Act, 15 U.S.C. §78j(b), and Rule 10b-5 promulgated thereunder, 17 C.F.R. §240.10b-5.

466. During the Class Period, Defendants made or were responsible for the material misstatements and omissions specified above, which they knew or recklessly disregarded were misleading in that they contained misrepresentations and failed to disclose material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.

467. Defendants violated §10(b) of the Exchange Act and Rule 10b-5 in that, by the use of means and instrumentalities of interstate commerce, the mails and/or the facilities of a national securities exchange, they:

(i) Employed devices, schemes, and artifices to defraud;

(ii) Made untrue statements of material facts or omitted to state material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; and/or

(iii) Engaged in acts, practices, and a course of business that operated as a fraud or deceit upon Lead Plaintiff and others similarly situated in connection with their purchases of Exxon common stock during the Class Period.

468. Defendants and the Company's officers, management, and agents did not have a reasonable basis for their alleged false statements and engaged in transactions, practices, and a course of business which operated as a fraud and deceit upon the purchasers of Exxon common stock during the Class Period.

469. As detailed *supra*, Defendants and the Company's officers, management, and agents, individually and in concert, directly and indirectly, engaged and participated in a continuous course of conduct to conceal adverse material information concerning, *intra alia*, the Company's investment and asset valuation processes and particular problems facing certain of Exxon's specific reserve assets.

470. Exxon is liable for all false and misleading material misstatements and omissions made during the Class Period, as alleged above, including the false and misleading statements made by the Individual Defendants and the Company's other officers and agents, as alleged above, as the maker of such statements and under the principle of respondent superior.

471. The allegations above establish a strong inference that Exxon, as an entity, acted with corporate scienter throughout the Class Period, as its officers and agents had actual knowledge of the misstatements and omissions of material facts set forth *supra*, or acted with reckless disregard for the truth because they failed to ascertain and to disclose such facts, even though such facts were available to them. Such material misstatements and omissions were made knowingly or with recklessness, and

without a reasonable basis, for the purpose and effect of concealing the truth about *intra alia*, the Company's investment and asset valuation processes and particular problems facing certain of Exxon's specific reserve assets. By concealing these material facts from investors, Exxon's share price was artificially inflated during the Class Period.

472. Lead Plaintiff and the Class have suffered damages in that, in reliance on the integrity of the market, they paid artificially inflated prices for Exxon common stock. Lead Plaintiff and the Class would not have purchased Exxon common stock at the prices they paid if they had been aware that the market prices had been artificially and falsely inflated by Defendants' material misstatements and omissions.

473. As a direct and proximate result of these Defendants' wrongful conduct, Lead Plaintiff and the other members of the Class suffered damages in connection with their purchases of Exxon publicly traded common stock during the Class Period.

COUNT II

For Violations of §20(a) of the Exchange Act
Against the Individual Defendants

474. Lead Plaintiff incorporates by reference and expressly reallege all allegations set forth in ¶¶1-473, *supra*, as if fully set forth herein.

475. This cause of action is brought pursuant to §20(a) of the Exchange Act, 15 U.S.C. §78t(a).

476. As detailed *supra*, Defendants each violated §10(b) and Rule 10b-5, and Lead Plaintiff and other members of the Class suffered damages in connection with their purchases of Exxon common stock as a direct and proximate result of Defendants' wrongful conduct.

477. In addition, during the Class Period, Defendants Tillerson, Swiger, Woodbury and Rosenthal acted as controlling persons of Exxon within the meaning of §20(a) of the Exchange Act. Specifically, by virtue of their high-level positions and their ability to control and influence the

Company's decision-making and day-to-day operations, Defendants Tillerson, Swiger, Woodbury and Rosenthal had the power and ability to control and influence – and, in fact, did control and influence, directly or indirectly – the wrongful conduct alleged herein, including, without limitation, the content and dissemination of the false and misleading material misstatements and omissions set forth *supra*. As a result, Defendants Tillerson, Swiger, Woodbury and Rosenthal are liable pursuant to §20(a) of the Exchange Act.

478. As a direct and proximate result of these Defendants' wrongful conduct, Lead Plaintiff and the other members of the Class suffered damages in connection with their purchases of Exxon publicly traded common stock during the Class Period.

PRAYER FOR RELIEF

WHEREFORE, Lead Plaintiff prays for relief and judgment, as follows:

A. Determining that this action is a proper class action, and certifying Lead Plaintiff as a Class Representative under Rule 23 of the Federal Rules of Civil Procedure and appointing Lead Plaintiff's counsel as Class Counsel;

B. Awarding compensatory damages in favor of Lead Plaintiff and the other Class members against all Defendants, jointly and severally, for all damages sustained as a result of Defendants' wrongdoing, in an amount to be proven at trial, including interest thereon;

C. Awarding Lead Plaintiff and the Class their reasonable costs and expenses incurred in this action, including counsel fees and expert fees; and

D. Awarding such equitable/injunctive or other relief as deemed appropriate by the Court.

JURY DEMAND

Lead Plaintiff demands a trial by jury.

DATED: July 26, 2017

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CERTIFICATE OF SERVICE

I hereby certify that on July 26, 2017, I authorized the electronic filing of the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the e-mail addresses denoted on the attached Electronic Mail Notice List, and I hereby certify that I caused to be mailed the foregoing document or paper via the United States Postal Service to the non-CM/ECF participants indicated on the attached Manual Notice List.

I certify under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on July 26, 2017.

s/ JOE KENDALL
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Manual Notice List

The following is the list of attorneys who are **not** on the list to receive e-mail notices for this case (who therefore require manual noticing). You may wish to use your mouse to select and copy this list into your word processing program in order to create notices or labels for these recipients.

- (No manual recipients)